

Modern

LITHOGRAPHY

FEBRUARY - 1954 - VOLUME 22 - NUMBER 2



Photo-composing operations in the modern San Francisco plant of A. Corbello & Co. (See page 2)

In this issue

Offset for Magazine Production? • Varnishing
Photo-Composing • Background for Production Control

Permanent Brown 2487P

Senelith Inks

Were the first lithographic inks
made from dyestuffs
treated with sodium tungstate
for better sunfastness
and are still leading
with their outstanding resistance properties

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only the safest minimum stretch

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the Tru-Dot Blanket
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keep looking ahead!*

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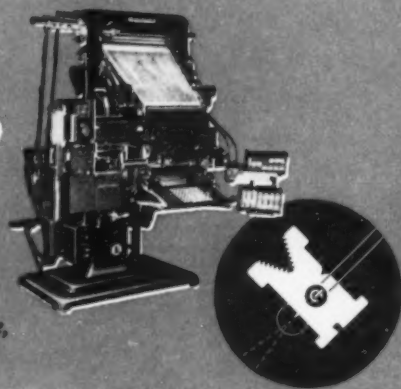
Successful printers and lithographers are *always* looking around for better machines and methods. That's why the Fotosetter photographic line composing machine has had such wide acceptance. Here is the newest, most revolutionary addition to the printing industry in decades.

Already Fotosetter has proven itself both practical and profitable in many types of plants. Prominent among an impressive and rapidly expanding list of Fotosetter users are: the world's largest automobile manufacturer, an international business form printer, the United States Government, the United States Air Force, the United States Army, numerous typographers, large and small offset plants, book publishers, a copperplate engraving company, and a nationally known label printer.

No other method of typesetting remotely approaches the sharpness of outline, perfection of fit, exactness of alignment and evenness of color of Fotosetter composition. Wherever platemaking is employed—lithography, gravure, photoengraving, silk screen—the benefits are obvious. No more problems due to ink squeeze, smudgy proofs, worn, broken letters. A new standard of typographic quality is here, ready for use in positive or negative form on film or photographic paper in any size desired . . . and in a wide variety of type faces.

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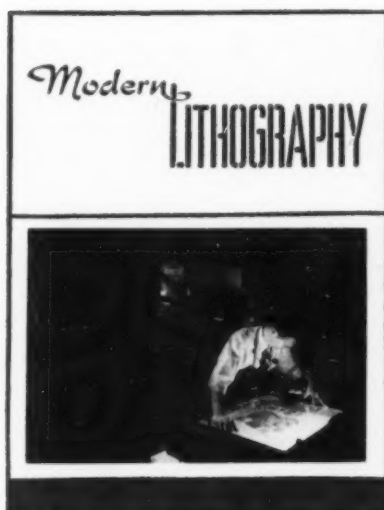
*If it isn't made by Intertype,
it isn't a Fotosetter.*



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Fotoset in Times Roman, Brush and Pica Sansbold

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THE COVER

From the 100th Anniversary booklet of A. Carlisle & Co., San Francisco printers, lithographers, and stationers, comes this view of a craftsman preparing work for a photo-composing machine. Beginning this month is a series of articles on the general subject of photo-composing. (Page 38)

ROBERT P. LONG
Editor

JOHN A. NICHOLSON
Advertising Manager

CHICAGO OFFICE
333 North Michigan Ave.



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MODERN LITHOGRAPHY

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FEBRUARY, 1954

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Address all correspondence to 175 Fifth Avenue, New York 10, N. Y.



PAPER

is the base
of the job!



TICONDEROGA TEXT

Printers and lithographers everywhere know the feeling of quality that Ticonderoga Text gives to a printing job. It's economical and most dependable.

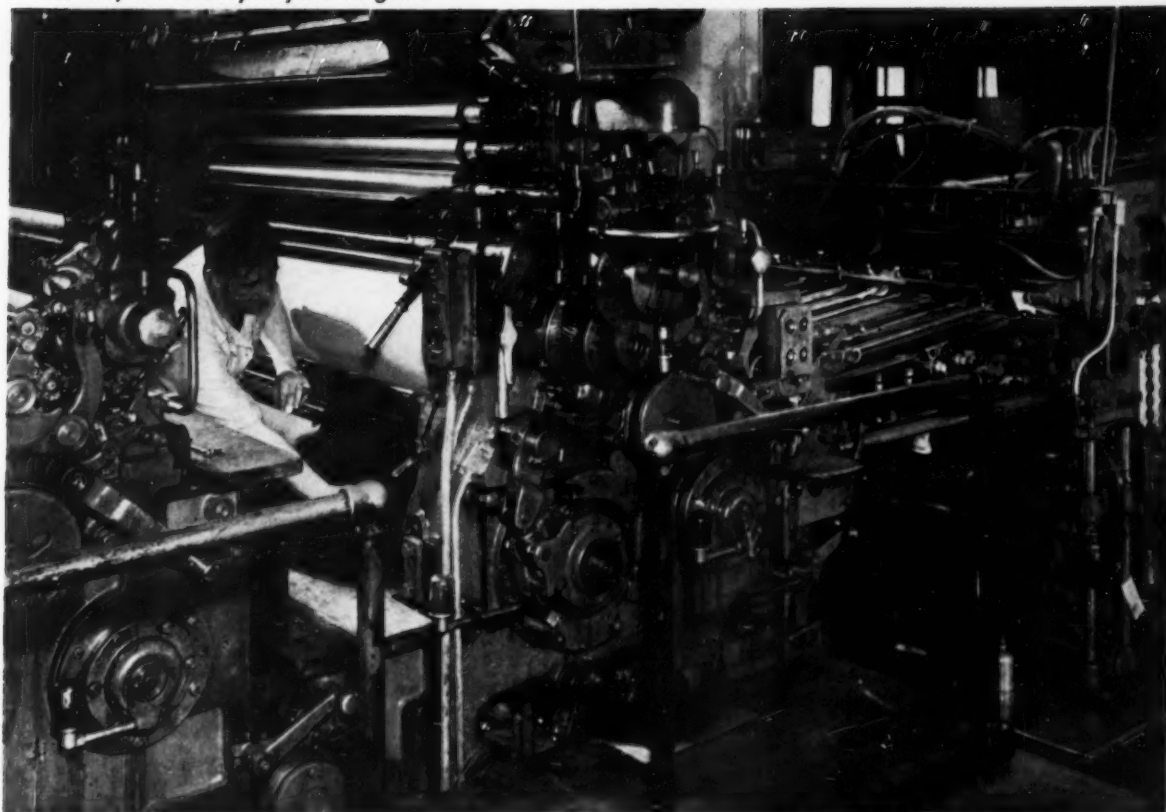
Ti-text comes in colors, Brite White and Cream, laid or wave finish—plain or deckle edges. Envelopes to match. In 60-lb., 70-lb., and Cover weight.


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MODERN LITHOGRAPHY, February, 1954

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Velva-Tone—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

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VELVA-TONE blankets by Goodyear are set off from other offset blankets by their outstanding press performance. Uniform gauge, low stretch, full flexibility, excellent solvent resistance and a unique surface texture are just some of their properties that pay off in time and money saved.

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GOOD YEAR

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We think you'll like "THE GREATEST STORY EVER TOLD"—every Sunday—ABC Radio Network—THE GOODYEAR TELEVISION PLAYHOUSE—every other Sunday—NBC TV Network



Tip Of The Month from Kimberly-Clark

Sometimes distortion in paper is confused with curl. A well packaged paper, that is conditioned to the pressroom before opening, seldom suffers from curl. But good, flat sheets can still come out of the delivery end of an offset press with a lot of distortion and edge curl. This curl often occurs when light basis weight offset papers are run with a heavy form without allowing a sufficient amount of paper on the lead and trailing edges of the sheets. A good rule to follow with light weight papers and heavy forms is to allow more than the usual amount of extra paper at the lead and trailing edges.



How to prevent distortion—details at left in
"Tip Of The Month"

Kimberly-Clark invites you to match your printing ideas with these—and win a \$50 Bond!

Paper helps delivery

We use an older offset press that does not have rotating air suction wheels to prevent the printed sheets from hitting the delivery gate. However, we solve the problem with strips of 80 lb. paper about 28 inches long and 4 inches wide. They are placed in or on the spray powder box or any place where the end of the strips would be in position with the rear of the sheet. The strips help to slow down the sheet and keep them from hitting the delivery gate and bending upward at that point. If there is a large amount of printed matter in the center of the sheet, place the strips out at the ends. As the gripper bar brings the printed sheet into the delivery, it also lifts the paper strips, and the gripper bar passes under. When the gripper passes under the strips, they fall onto the paper and slow it down, keeping the finished pile neat and orderly.

Karl O. Willi

2467B No. 20th St., Milwaukee, Wisconsin

Eliminates halftone "pattern"

Here's how to eliminate the objectionable pattern in a screen of any size by shooting a halftone re-screen negative: Find two points $6\frac{1}{4}"$ apart on the image. Enlarge by moving your copy board toward the lens to $6\frac{1}{4}"$. Then move the lens board toward the ground glass, reducing the $6\frac{1}{4}"$ back to $6\frac{1}{4}"$. There will be a peculiar dot formation in the middle tones and the negative will be approximately 5% unsharp, but the final print will be satisfactory and without pattern. This method works on all types of screened copy with all types of screens.

A. E. Amos, Offset Cameraman
A. B. Hirschfeld Press
Denver, Colorado

Speedy saddle-back stitching

Our speed in wire stitching of saddle-back jobs has always been limited to the operator's ability to open the gathered sheets at the middle page quickly. We have solved the problem by using racks on which the books are hung on bars (cutter sticks) about an inch apart. We place 15 books to the bar, as gathered. Thus the books are already opened at the centers when they reach the stitcher operator. A standard made of scrap crating was made for each gatherer, and one for the operator, who keeps it in front of him. Thus it is necessary to transfer the sticks only, not the standards. An upright storage rack enables the gatherers to place their loaded bars in it ahead of the stitcher operator.

This system applies to all stapling machines but is especially useful for automatic or gang stitchers, to keep up with the speed of the machine.

Warren O. McIntyre, President
Missouri Printing Co.
McIntyre Building
Mexico, Missouri

Sponge box

This is a container for the sponges you use to apply gum to your offset plates. It's simply a plastic box with lid, sold by variety and other stores as a refrigerator accessory. The sponges stay moist, keep clean, and retain their neat square-cornered shape.

Gene White
San Luis Obispo, California

Do you have an item of interest? Let's Swap Ideas

All ideas contributed become the property of Kimberly-Clark for use in any printed form. For each idea used in our magazine advertising, we will give the sender name credit and a \$50 Savings Bond. In case of duplicate ideas, only the first received is eligible for the award. This offer supersedes any offer published in previous advertisements, and continues for two months only. Address "Let's Swap Ideas", Dept. ML-24, Kimberly-Clark, Neenah, Wisconsin.

Kimberly-Clark carton pack modernizes paper packaging

Lithographers all over the country are discovering the many advantages of ordering paper in the new rugged Kimberly-Clark Carton Pack. It holds a fixed number of sheets and weighs only 150 pounds fully loaded. It gives complete protection against dirt, moisture and tearing—and is far easier to handle. With the new Carton Pack you open only as much paper as you need, eliminating the spoilage common with partly used cases. Storage is more efficient, too! Next time, if you want to see how ordering, delivery, storage, inventory control and printing are made easier . . . how spoilage is reduced or eliminated . . . order paper in the new Carton Pack!

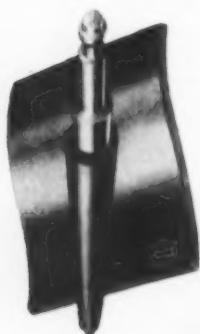


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Kimberly-Clark



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Each Mercury Roller and Blanket is individually built by craftsmen who are artists in their field. Their skilled touch makes the difference which has become famous as "Mercury Quality". See for yourself how much finer your work turns out when you use the masterpiece rollers and blankets—MERCURY Products.

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FEDERAL AT 26TH ST. • CHICAGO 16, ILLINOIS

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Whatever products your catalog will be designed to sell, it will be, itself, a product of *paper*. So start right there. Choose a paper that will do justice to the reproductions of the products it must sell, and thus increase your chances of making people buy. For the best by letterpress, insist upon **BLACK & WHITE ENAMEL**, the aristocrat of glossy coated. For tops by offset, specify **MOISTRITE OFFSET**. These are only two of many Mead Papers which include covers in a wide range of colors. Mead Papers mean business, as

your printer or lithographer, backed by America's leading paper merchants everywhere, will tell you.

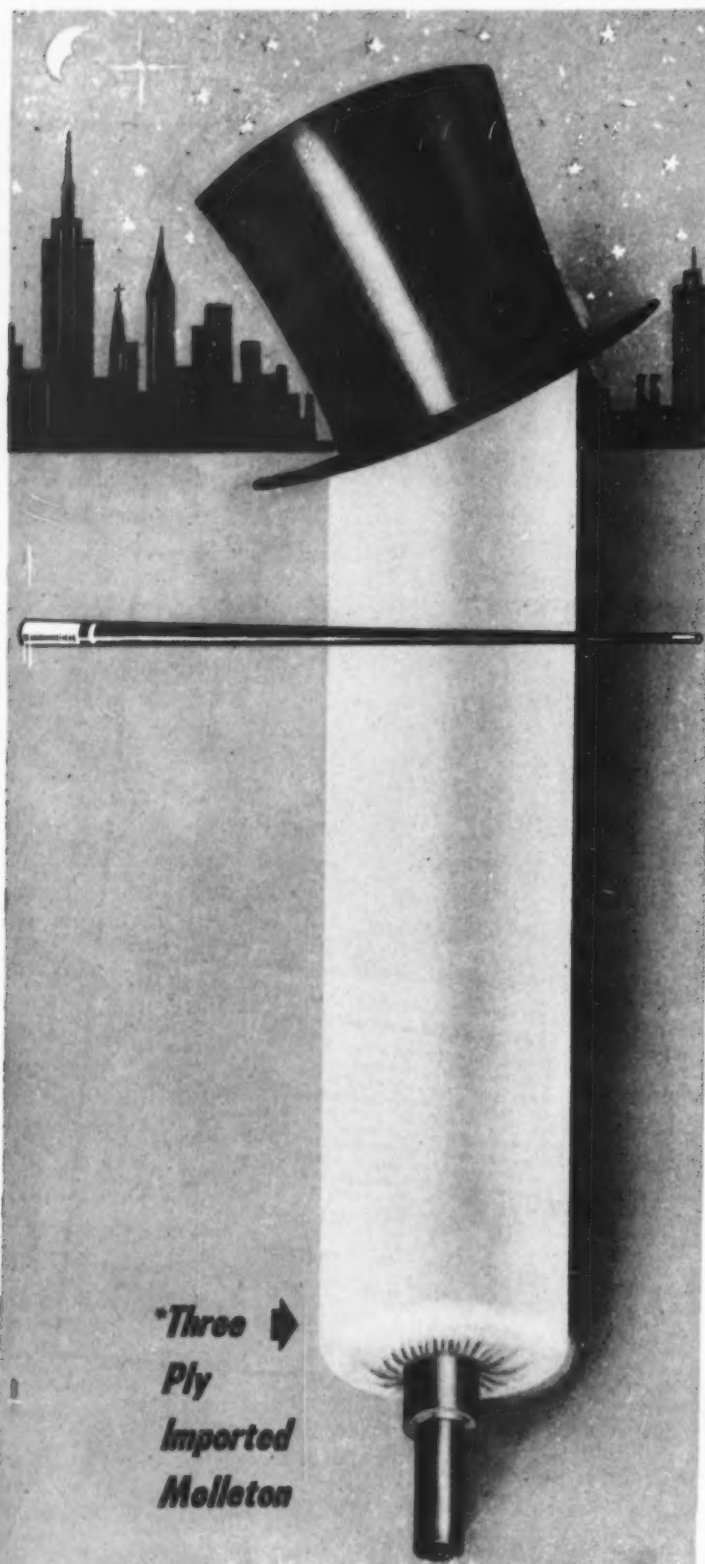
BETTER IMPRESSIONS, a colorful quarterly now in its fourteenth year, shows Mead Papers at work. Called "the most stimulating paper demonstrator ever produced," each issue is chock-full of ideas. If you are an advertiser or a creator or producer of advertising of any sort, a complimentary copy will be mailed to you in exchange for your request on your business letterhead.



THE MEAD CORPORATION "Paper Makers to America"
Sales Offices: The Mead Sales Co., 118 W. First St., Dayton 2 • New York • Chicago • Boston • Philadelphia • Atlanta

This advertisement in full-color in *Time* and *Business Week* helps you.

MEAD PAPERS mean business...for merchants, merchant-salesmen, printers, lithographers and advertisers. Making Mead Papers—the line and the trade-mark—unforgettable in the minds of those who buy and specify is the job being done through national advertising. Remember...Mead Papers mean business for you! **THE MEAD CORPORATION, "Paper Makers to America."**



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Ply
Imported
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COMPLETE LINE OF LITHOGRAPHIC AND DUPLICATING SUPPLIES

*What the
"best-dressed"
Dampening
Rollers
wear today!*

THE EXCLUSIVE NEW

TRI-MOL*

**DAMPENING
COVER**



It's that EXTRA ply...
for cleaner solids . . . sharper half-
tones in color or black and white. The
tendency to lint is greatly reduced
because of the long smooth cotton
fibres and 3 ply construction.



It's that EXTRA ply...
for more uniform water distribution.
The "hidden reservoir" of water in
the extra ply is the secret. The 3 ply
construction eliminates the stretch
found in some molleton covers.



It's that EXTRA ply...
that maintains its soft velvet-like finish
for a greater length of time. Less
roller drying means quicker water
pick-up on press makeready. For
greater efficiency and economy it's
"TRI-MOL."

MEMBER



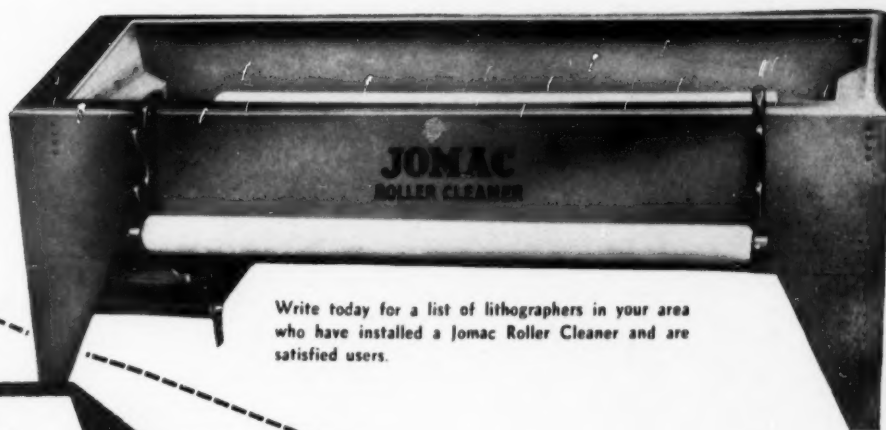
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NEW YORK 12, N. Y.
GRamercy 5-8760**

ASK THE
LITHOGRAPHER
WHO OWNS
ONE



Write today for a list of lithographers in your area who have installed a Jomac Roller Cleaner and are satisfied users.

Exhibit

A

*in the case for lower
lithographic operating costs*

If you want to cut down on operating expenses this year — and who doesn't? — we submit Exhibit A as proof that it can be done; to wit:

If you are now cleaning your dampener roller covers by hand . . . or breaking them in on the press . . . a Jomac Roller Cleaner, by giving it a fair trial, will prove beyond any question of doubt that you can save more than one-half of your present cleaning, recovering, breaking-in and dampening cover materials costs.

A fair trial should be enough to convince any lithographer. But if further testimony is needed, we shall be glad also to submit Exhibit B; to wit:

The names and addresses of lithographers in your area who have installed a Jomac Roller Cleaner. We suggest you cross-examine them and return your own verdict in the case for lower lithographic operating costs. Be convinced by an impartial witness.

Then write and tell us your needs. Ask for descriptive folders giving the sizes and models available. There's a Jomac Roller Cleaner for every size pressroom and every size budget.

SEND FOR
FOLDERS,
GIVING
MODELS
AND SIZES
AVAILABLE.

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Graphic Arts

Division of C. WALKER JONES CO. • 6135 N. Lambert St., Philadelphia 38, Pa.

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mill-to-you.

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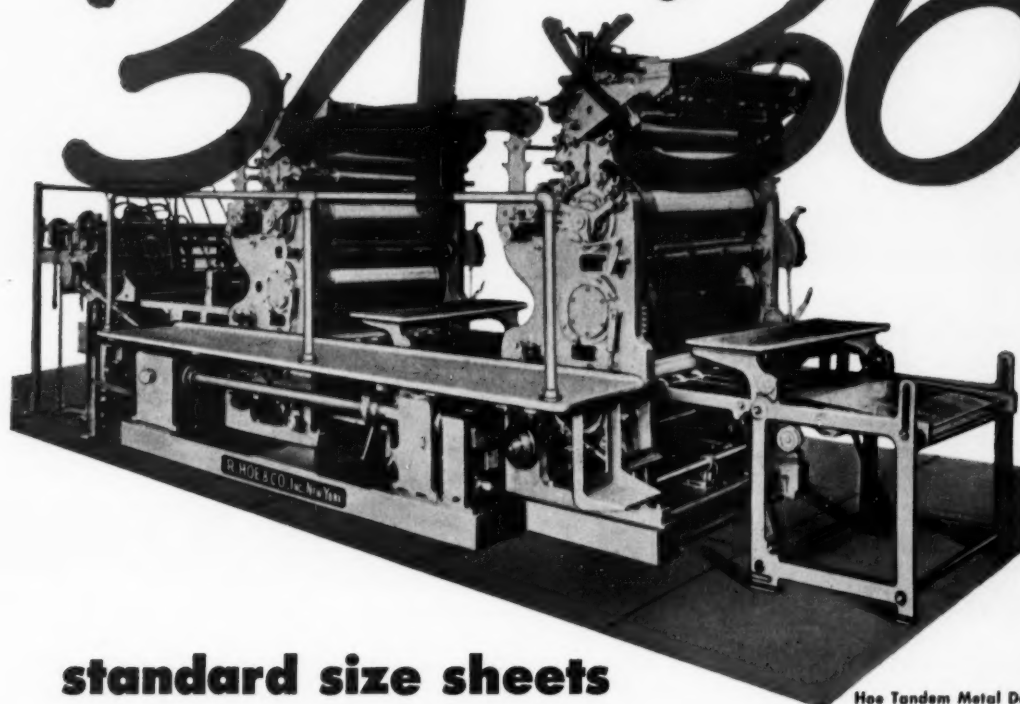
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handles the large

34" 36"



Hoe Tandem Metal Decorating Press

standard size sheets

without any increase in the over-all size of the press. This new model requires no more floor space than older presses with smaller sheet capacity.

Outstanding features of the single and two-color metal decorating press include:

- **HOE STRAIGHT-LINE FEED** with magnetic rollers, which makes possible higher production speeds, with the utmost precision of registration, and increased ease of operation.
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- **HOE PLATE LOCKUP MECHANISM** by which a plate is locked on the cylinder by a quarter turn of a single wrench.
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These and other special Hoe features contribute to high-quality production, ease and safety of operation, long service life and low maintenance.

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The services of the N.A.P.L. are cut to your pattern. If you operate a small single color press or a battery of multi-colors, the N.A.P.L. has a service to help you solve your problems.

Here are the services that can be adapted to your needs:

Budgeted hourly rates. To get top efficiency in figuring your costs, you need the kind of cost information supplied by N.A.P.L.

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Trade Customs. When you are fully aware of your rights and those of your customers you can maintain better relations and avoid costly misunderstandings.

Find out how you can profit by membership in the N.A.P.L. Use the coupon below.



NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS
317 West 45th Street, New York 36, N. Y.

1954

We hereby make application for enrollment as an Active (Associate) Member in the National Association of Photo-Lithographers, and if elected, agree to abide by its by-laws and support its objects and interest as far as our time and ability will permit.

We enclose herewith \$..... as our first year's dues.

ANNUAL DUES FOR THE PRESS EQUIPMENT IN OUR PLANT IS AS FOLLOWS:

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	Presses smaller than 17"x22" (Minimum Dues \$37.50 per year).....	\$20.00 per press per year	\$
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	Presses larger than 22"x28" up to and including 35"x43".....	\$37.00 per press per year	\$
	Presses larger than 35"x43".....	\$47.00 per press per year	\$
	MINIMUM DUES, \$37.50 per year. Maximum Dues, \$450.00 per year.		
	ASSOCIATE MEMBERS		\$
	Equipment and Supply Dealers and Manufacturers, \$125.00 per year		\$
	Total Annual Dues		\$

Firm

Address

No., Street or Avenue

City, Zone and State

Phone

Signed

NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS
317 WEST 45th STREET — NEW YORK 36, N.Y.



EXAMINING A QUALITY JOB turned out by the "3M" Plate is Pressman HOWARD HALL of Chicago's Linehan, Inc. Mr. Hall is especially impressed by this all aluminum plate's long press life, sharpness of impressions and speed of processing.

"3M" Plates stand up for long runs at Chicago's Linehan, Inc.

"I HAVE PRINTED about 3,000 jobs with the '3M' Plates," writes Pressman Howard Hall, "and they have given us runs of 30,000 and even 50,000 impressions.

"I find ('3M' Plates) are easier to handle, and the halftones and type matter are nice and clear. We have '3M' Plates in storage that we use over and over," continues Hall. "In

case we need a new plate, the press is held up just a few minutes while the plate is being made.

"I believe that once a '3M' Plate is used," Hall concludes, "the quality of work produced improves. An ordinary pressman becomes just that much better."

Why not try the "3M" Plate yourself? You'll agree with Howard Hall!

Quick Facts on "3M" Photo-Offset Plates

- use less water, less ink • won't oxidize • are convenient and safe to store • deliver perfect re-runs • produce jobs of deep-etch quality • are pre-sensitized for immediate exposure

FREE Sample Plate!

All-Aluminum



Pre-Sensitized

PHOTO-OFFSET PLATES

MADE BY THE MAKERS OF "SCOTCH" BRAND CELLOPHANE TAPE

Made in U.S.A. by MINNESOTA MINING AND MFG. CO., St. Paul 6, Minn.—also makers of "Spherkote" Brand Tympan Covers and Frisket Papers, "Scotch-lite" Reflective Sheeting, "Scotch" Brand Pressure-Sensitive Tapes, "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Safety-Walk" Non-slip Surfacing, "3M" Abrasives, "3M" Adhesives. General Export: 122 E. 42nd St., New York 17, N.Y. In Canada: London, Ont., Can.



Minnesota Mining and Mfg. Co.
Dept. ML24, St. Paul 6, Minn.

Please have delivered my sample "3M" Plate plus complete information:

NAME.....

COMPANY.....

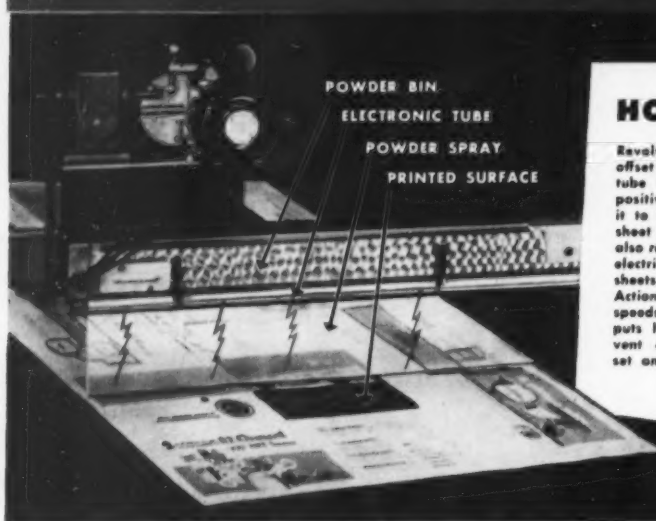
ADDRESS.....

CITY.....ZONE.....STATE.....

OXY-DRY

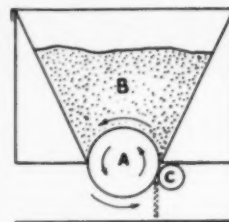
**THE MOST EFFICIENT
OFFSET PREVENTION METHOD**

**INCREASES IMPRESSIONS PER HOUR
FROM ALL PRESSES—ALL PROCESSES**



HOW OXY-DRY OPERATES

Revolving shaft A distributes anti-offset powder B past electronic tube C which gives 10,000 volt positive charge to powder causing it to bond instantly across entire sheet as it is delivered. This action also reduces negative charge (static electricity) in paper which frees sheets from sticking and jamming. Action of ozone emitted from tube speeds oxidation of ink, powder puts legs between sheets to prevent offset and permits inks to set and dry thoroughly.



ONLY OXY-DRY GIVES YOU ALL THESE ADVANTAGES

- Uniform offset prevention on all types of work
- Positive powder control—with new micrometer speed adjustment
- Elimination of static electricity from sheets permits easy flow of work
- Fast drying of ink and uniform, full, free flowing loads
- Time and labor saved from cleaner, more efficient operation
- No dust hazard—powder is fully-endorsed health factor

NEW

OXY-DRY rollers are now furnished with positive powder control etched surface. Eliminates "down-time" for costly labor time sanding, permits operation of sprayer for far longer time without service of any kind except to refill with OXY-DRY powder...one of a parade of improvements you can expect only from OXY-DRY research and development.

For more information and quotations
write or wire a phone

OXY-DRY SPRAYER

CORPORATION

NEW YORK CHICAGO SAN FRANCISCO

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CAST COATED PAPER

Kramakote Enamel
Kramakote Label
Kramakote Litho
Kramakote Cover
(Cast Coated 1 Side)
Kramakote Cover
(Cast Coated 2 Sides)
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(Cast Coated 1 Side)
Kramakote Postcard
(Cast Coated 2 Sides)
Kramakote Box Wrap

DRUM FINISHED PAPER

Colorcast Box Wrap
Colorcast Gift Wrap

COATED COVER

Hingefold Coated Cover
Refold Offset Cover

DULL COATED BOOK

Dullefold Coated

UNCOATED BOOK

Garamond Antique
Garamond English Finish
Garamond Text (W. M.)
Wedgwood Offset
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UNCOATED COVER

Ariel Cover
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ENVELOPE PAPER

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Radiant White Envelope
Foldur Kraft Envelope
Gray Kraft Envelope
Suntan Kraft Envelope
Ne'er Tear Envelope

COATED POST CARD

Campaign Postcard

BRISTOLS

Inventory Index
Canton Postcard

TAG

Tuf-Tear Tag

BOND, MIMEOGRAPH

Ariel Bond
Scriptic Mimeograph

PAPETERIE

Wedgwood Papeterie
Garamond Papeterie
(Embossed and Printed)

PRESSBOARD

Champion Pressboard
Imitation Pressboard

SPECIALS

Cigarette Cup Stock
Food Container Stock
Coffee Bag
Tablet Papers
Drawing Papers
Red Patch Stock
Stencil Board
Pattern Board
End Leaf Paper

The Champion Paper and Fibre Co.

General Office: Hamilton, Ohio

MILLS AT HAMILTON, OHIO . . . CANTON, N. C. . . PASADENA, TEXAS



For **BLACKER** Blacks
and **WHITER** Whites...use

Ansco REPROLITH FILM

Ansco Reprolith Film is intended primarily for making high contrast positives by contact printing from line or halftone negatives.

It is also frequently chosen for making excellent line or halftone negatives in the camera.

Reproolith's blue-sensitive emulsion is coated on a low-shrink safety base. Like *all* Ansco Reprolith Films, it gives you the high resolving power...the fine-dot etching qualities...the clarity in white areas...the steep gradation...and the wide developing latitude that help your plant turn out finer work at lower cost.

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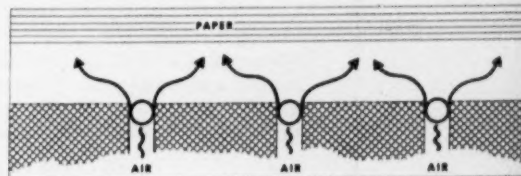
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With this Seybold Cutter, the Paper "Floats on Air"

Shoving stock into a big paper cutter used to take lots of brawn. But it's not necessary now. You can get a Seybold cutter with an air-film table to do the muscle work. The air film steps up productivity by taking much of the hard labor out of paper cutting. Here's how it works:

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No more "wrestling" is the operator's profit

On lifts as light as 30 pounds, the air film reduces friction between paper and table by about two thirds. On lifts as heavy as 400 pounds, friction is reduced by as much as 85%. The operator can position heavy lifts on the table with the finger tips of one hand.

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With the operator able to concentrate on precise cuts and trims, spoilage is reduced and customer complaints diminish. The steady pace at which he can work keeps a bigger volume of paper moving through the cutting room. This is shown by actual production records of owners using air-film-equipped Seybold cutters. They report substantial increases in volume over cutters with standard tables.

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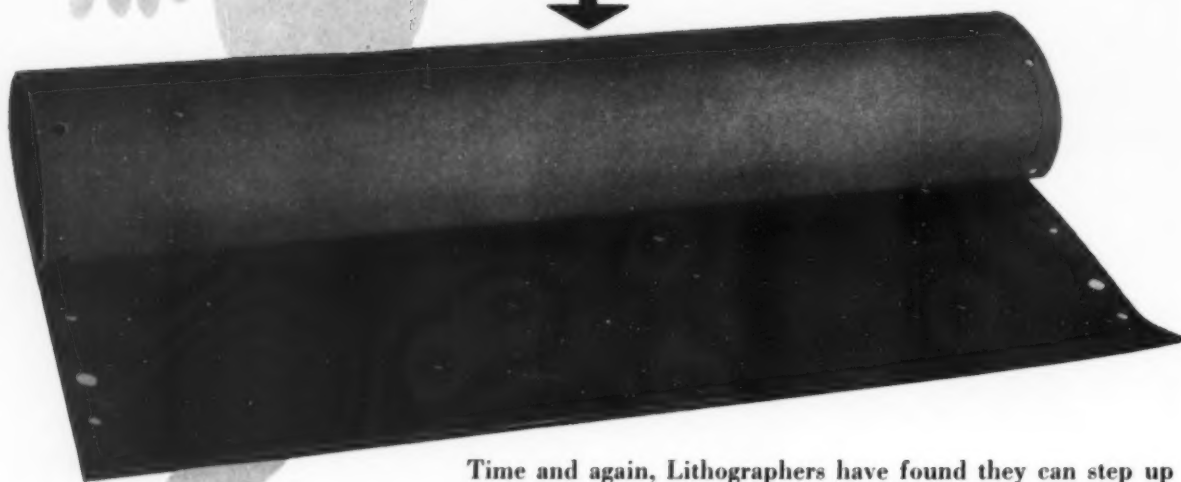
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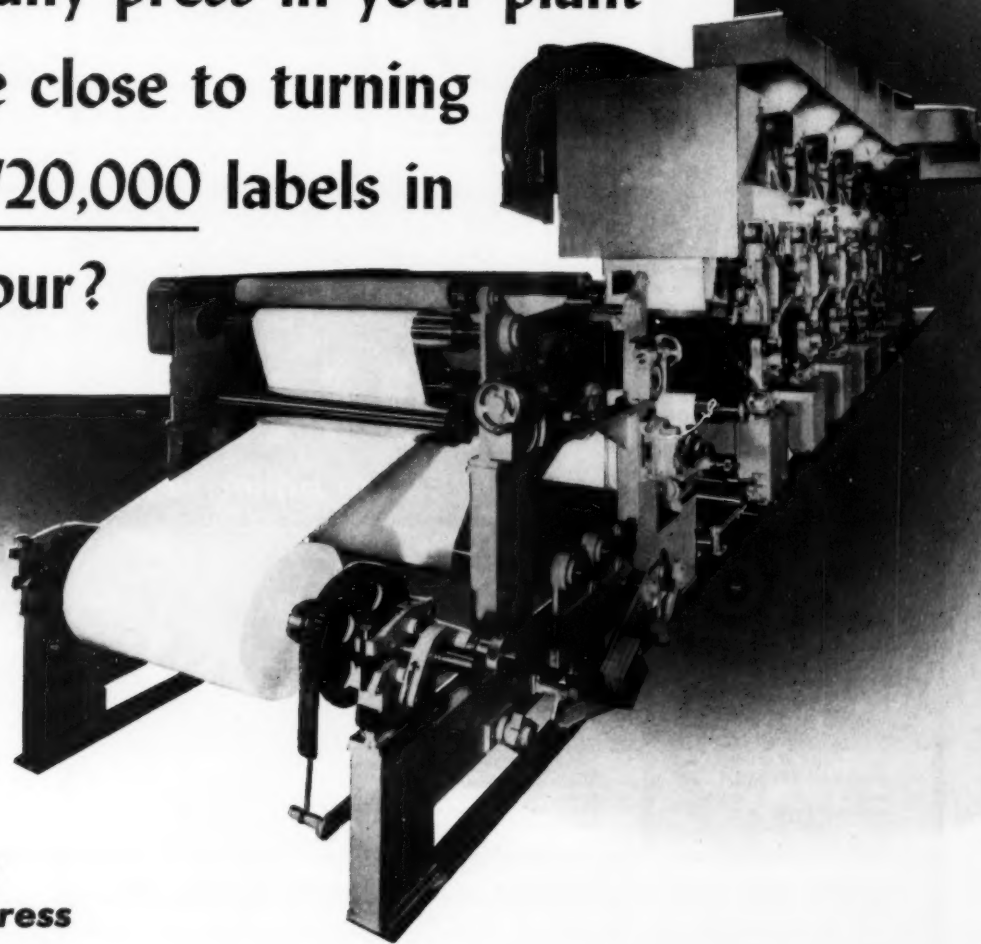
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Can any press in your plant
come close to turning
out 720,000 labels in
an hour?

**That's the
average
production
on one
ATF-Klingrose
rotogravure press**



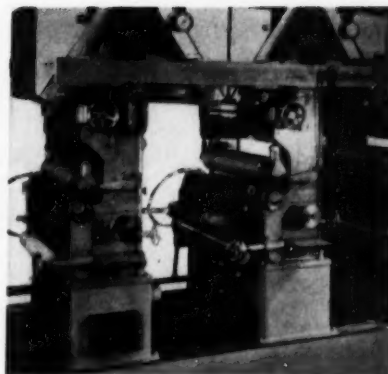
● But great speed is only part of the story. This particular press is running four colors, one of them a clear gold lacquer. Each color is bone dry before the next is overlaid. Stock is foil, laminated to paper.

Five miles of web pass through the press every hour. The sheets of $4\frac{1}{4} \times 3$ " labels are edge-trimmed and sheeted to absolute register, then pile-cut under the guillotine. You've seen them time and again on bottles containing a nationally known beverage.

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We'll be glad to furnish further information on request. Write to American Type Founders, Mt. Vernon division, a subsidiary of Daystrom, Inc., Mount Vernon, N. Y.



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ATF

11 Good Reasons why



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Dazzling Micro-Brite messages sell SCHLITZ from many "extra" locations in dealer outlets.



Versatile CLUB ALUMINUM die-cut stands on product or serves as individual handy sticker.

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the moistureless, self-sticking adhesive



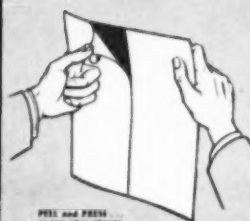
Multi-purpose price marker lets the retailer display his price in the most advantageous spot.



CIVIC GROUP tells safety story in Day-Glo on easy-to-see bumper strips.



Novelty piece slides between packages, holds firmly to shelf projects at right angles for 2-side display.



PEEL AND PRESS... KLEEN-STIK STAYS!



Simple die-cut and slide-stick arrangement provides lifelike 3-D can for shelf-strip display.

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You can create advertising that sells for you! . . . successful point-of-sale pieces that dealers welcome because they stick without water . . . hold tight on any hard, smooth surface.

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Instruction or identification labels in rolls are ideally suited for automatic label machine dispensing.



COLORFUL labels ride export packages, double as baggage stickers, too.



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KLEEN-STIK holds this handy, flocked change pad to wood or glass-topped counters.



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- ★ Long runs of matchless reproduction on either halftone or line work.
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1 gallon	6.50	7.00
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& SUPPLY CO., Inc.
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LYNBROOK, L.I. NEW YORK





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Coast to coast, lithographers report top performance, reduced working time, more satisfactory reproduction—with Harold M. Pitman's UNIPROCESS... for improved surface and deep etch plates.

If you have not yet tried UNIPROCESS in your plant, you owe it to yourself and to your customers to see what a difference in plates, reproduction—and in cost—you get with UNIPROCESS.

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Couldn't Have
Said It Better
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HERE'S WHAT
A FEW PRINTERS
SAY ABOUT

Strong
**GRAFARC
LAMPS**

"HAS DOUBLED OUR CAPACITY IN
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—AN INDIANAPOLIS LITHOGRAPHER

"We would hate to return to the older
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—A BINGHAMTON,
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"ONE OF OUR PROUDEST POSSESSIONS."
—A NEW YORK CITY PRINTER.

"We have been particularly well pleased in its uniform
coverage of large areas, and OUR STANDARD EXPOSURE
TIME HAS BEEN CUT IN HALF ON NEARLY ALL KINDS OF
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"Has enabled us to reduce our exposures of deep-etch plates by
two minutes and thirty seconds, and on flat plates, one minute,
which certainly is A GREAT SAVING TO US. The features which
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improved method of carbon holders."
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"The COVERAGE IS VERY GOOD and
there is NO FLUCTUATION IN LIGHTING."
—A ST. LOUIS PRINTER.

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*For control that improves quality,
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Please send free literature and prices on
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Lots of **LIFE!**
... and plenty of git-up and glow

So for the *LIFE* of your job,
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Editorials

BEST news during the past 30 days was the announcement by the Government Printing Office that it is reducing by five percent its charges for printing. Other government departments and agencies, who are the "customers" of the GPO, thus will share in the economy results of the efficient printing operations.

In a letter from Raymond Blattenberger, Public Printer, to the heads of government departments, he stated that the reduction, the first in 20 years, was the result of changes made in GPO management during the last eight months. "Shortly after I took office," the Public Printer said, "the Congress approved a business-type budget for the Government Printing Office, which is set up in almost the same manner as the budget for any large private printing plant. I believe that this change has resulted in real savings, and the mere shift in emphasis from the regular type Government appropriation to a business type structure is in itself causing everyone concerned at the Government Printing Office to adjust his thinking from the regular Government terms to the thinking of people engaged in a business activity."

He reported that he had instituted a series of internal budgets for the administrative and service divisions, with a resulting reduction in overhead expenditures of over \$882,000 a year. Further shifts in operations resulted in savings of \$23,000 a month while Congress was not in session, and of \$11,000 per month since that body has convened. The GPO has initiated action to return to the Treasury Department \$5,000,000 of the GPO's cash working capital, which it was felt could be utilized to better advantage elsewhere in the Government.

The Public Printer's hope is "that this is not the end, but only the beginning." "I am looking forward to the day," Mr. Blattenberger concluded, "when every Government agency will have its printing done at the Government Printing Office, not because it is required to do so by law, but because the Government Printing Office renders the type of service the agency wants when the agency wants it."

This type of thinking and action on the part of the Public Printer certainly deserves the acclaim and support of the graphic arts industry.

EVERY year Printing Week goes snowballing along, getting bigger and bigger. Activities bringing our industry to the attention of buyers and the general public this year seemed to have a wider scope than last year, which was wide indeed. Printing Week, sparked by the International Craftsmen's organization, is a valuable public relations program for all phases of the industry.

AS far as lithographers are concerned, the next important promotion project on the calendar in the field of public relations is the Fourth Annual Lithographic Awards Competition. The best in some 44 different classifications of offset lithography will be selected for display, as has been done in past years. March 1 is the deadline for entries, the Lithographers National Association, sponsor, announces. Lithographers, clients, agencies, designers, or others connected with a lithographed job may submit entries. Quality, design and art, and functional value are the considerations in judging.



Offset is being used in the publications shown above. These include Tempo, and various international editions of Time, Newsweek, and Readers' Digest.

Is Offset Suited for Magazine Production?

IN THE course of a long experience in the production of both large and small edition magazines, the writer has on many occasions discussed and reviewed the reasons why more magazines are not produced by offset lithography. Any consideration of the pros and cons of this subject will necessarily involve the adaptability of existing procedures and available equipment in the lithographic field, although there is no doubt that if the demand existed and the idea of printing magazines by offset lithography took hold, new equipment could be developed that would meet the needs of magazine publishers for both small and large editions.

To begin with, let us delimit the field and pinpoint at least theoretical

By Irving B. Simon

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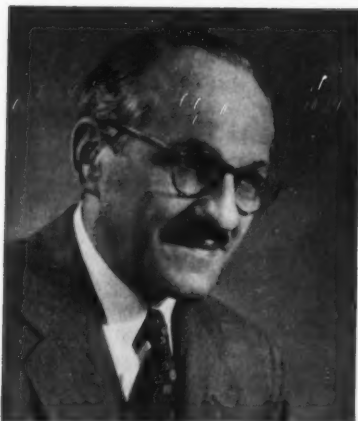
figures representing what we mean by small and large editions. In the writer's view, offset lithography could be considered for editions as low as 25,000 and as large as 500,000, depending, of course, on trimmed size, paging, and other factors which would also have to be taken into consideration. On the shorter runs, the relatively high preparation costs which would occur in offset lithography, just as they do in letterpress and gravure, would favor offset only if the publication contained large or complicated halftone illustrations. On the larger runs, the problem of plate replacement would begin to operate against offset, although the bi-

metallic and tri-metallic plates have gone a long way towards solving that problem.

When we begin to consider really long runs past the million mark or so, the factor of preparation cost becomes relatively minor and the entire comparison would revolve around potential press speeds, press sizes, ink drying problems and built-in folding equipment. There is no doubt that letterpress and gravure have taken the lead in these areas, but there does not seem to be any valid reason why offset lithography could not be run as fast and as efficiently in large scale operations.

Comparisons

Let us turn now to a consideration of some specific points which would affect a publisher's choice of offset



Irving B. Simon, author of this article, is a graphic arts consultant. He was formerly production manager of Macfadden Publications, Inc., New York, supervising the planning and mechanical production of nine nationally distributed magazines. Mr. Simon is a member of the board of directors of the American Institute of Graphic Arts. For many years he has taught a course in Elements of Printing and Printing Processes at the New York Employing Printers' Association, and he conducts one in Problems of Magazine Production at New York University.

.....
lithography as a practical means of producing magazines. In the composing room, costs for typesetting would be about equal for both offset and letterpress, or gravure as well, for that matter. The additional step of making reproduction proofs for offset would be about balanced by the locking-up of type forms for foundry or for press in letterpress. The most significant change that is likely to occur in this area is the introduction of photographic composition by machine such as the Fotosetter or Photon. Photographic composition is much more suited to offset lithography than it is to letterpress, and it offers a special advantage since the product of the composing machine may be in the form of a film negative or positive ready for make-up in page form.

In the field of platemaking, the comparison often has been made between the cost of offset press plates and letterpress electrotypes. It is not quite proper to isolate this one item for that purpose, since an offset press plate is partly original engraving and partly printing plate, and even though on any basis the offset

plate will appear to be cheaper, it is only one of the elements of cost and cannot be considered by itself. The deep-etch offset plate, which has come into almost universal use, offers a good deal of advantage over the albumen plate, both from the standpoint of longer life and uniform quality and should satisfy the needs of many publishers for medium size runs.

One problem which would be faced by offset lithographers who take on publication work is the binding and mailing of publications. Most offset plants do not have their own binderies, whereas letterpress printers who print publications have found it an advantage to operate their own binderies and mailing rooms. This seems to be a most desirable condition for this type of work, as it can be under one control and thus make possible the satisfactory performance of rigid schedules.

Publishers' Problems

Now let us look at some of the everyday problems of publishers who may be contemplating production of their magazines by offset lithography. They would have to be prepared to close their forms complete, whereas in actual practice they often make a few last minute switches to accommodate late items or correct errors. For magazines that are printed by letterpress, whether from type or electrotypes plates, there is no doubt that a last minute change or holding open for a late item is accomplished more readily than in offset. However, this is a situation that can be solved by changes in operating procedure and rigid adherence to scheduled deadlines. In this connection, some mention should be made of the growing practice in magazines printed by letterpress, of running so-called test copy or split runs for advertisers, wherein part of the run contains one version of an advertisement, and the rest a different version. The mid-run changes involved in such a split run on a magazine printed by offset would require a new press plate, whereas in letterpress only the single page plate or type form is changed.

The whole field of advertising in magazines has always involved get-

ting the original material from many sources. The advertising agency business has grown up around routines developed for letterpress operation and it would require somewhat of a major change in their production methods to adapt them to the requirements of offset lithography. Nevertheless, a great deal of progress has been made in another field—gravure—whose requirements are similar to offset, and ways have been found of duplicating art copy, both black and white and color transparencies, and even the making of complete retouched positives by gravure engravers who specialize in this service. There is no reason why similar facilities could not become available in lithography.

Another way of solving this problem would be to rely on conversions from letterpress plates furnished by the advertiser. The writer has seen some excellent examples of both black and white and four-color process work done by conversion and is convinced that this is a practical and usable procedure.

Still another consideration for publishers of the average popular magazine, and even business magazines that might be contemplating printing in offset lithography, is the second colors they are required to run in advertisements as well as in the text of their body forms. In letterpress, a fairly wide range is secured by the use of split fountains. This does not seem to be a procedure that has been developed to any great extent in offset lithography, and progressive lithographers should be prepared with an answer when that question comes up. Perhaps it requires a scheme of running different second colors two rows of pages apart on a form. A practical suggestion with reference to the problem of second colors would be to plan on running sheetwise forms instead of work-and-turn forms. This will give greater latitude through the use of different colors on each side of the sheet, and in the distribution of color in various signatures of a magazine.

Web Presses

Coming now to the possibilities for larger edition magazines requiring web press operation, the limitations

in offset are not very different from those in letterpress or gravure. All web presses with folding attachments suitable for magazine work are built to produce certain fixed sizes or subdivisions of them derived by refolding the delivered signatures in one dimension or another. Of course, while the offset is fixed, some variation may be obtained by increasing or decreasing roll sizes. The point is that the prospective magazine publisher-customer must accommodate himself to the limits of the press and this sometimes requires a change from his present size. Offset web presses have, of course, been built, although in relatively limited quantities, and they are in practical use for certain publication and commercial work. There is no doubt that they have benefited as much from the development of heat-set inks as has high-speed letterpress, and that without the heat-set feature an offset web press could not be competitive with heat-set letterpress.

Some thought should be given to

the matter of paper as it relates to publication printing by offset. In letterpress, generally speaking, most magazines today are run either on machine-coated or super-calendered papers, while in gravure, more use is made of English Finish, Machine Finish or even Premium News stocks. The range of offset papers available today includes equivalents of all these grades. In the writer's view, a good super-calendered paper in the hands of skilled craftsmen in offset can produce a quality of printing equivalent to a letterpress production on machine-coated, which usually costs more per hundred-weight. It would be a good idea to encourage the production of more super-calendered paper for offset, both in groundwood and free sheet, as it would undoubtedly prove to be a very satisfactory medium for magazine work.

There are some well known magazines which are now using offset lithography for all or part of their editions. *Tempo* is an example of an all-offset magazine. *Reader's Digest*

is being printed on a four-color perfecting web offset press for its Argentine edition, and numerous of its other International Editions, such as the Portuguese, Indian, Finnish, Austrian and Italian are entirely in offset, while still others are part offset. *Time* magazine uses offset for its Latin-American, Atlantic Overseas and Pacific Overseas editions. *Newsweek* is done in offset for its Pacific and Continental (European) editions. During World War II these two latter magazines were printed by offset lithography at many points throughout the world by sending cellophane or reproduction proofs of the regular edition by air to local plants which speedily got to press with their editions and made publishing history.

There are, of course, many other lesser known magazines that are being produced partly or entirely in offset. The problems, such as they are, are not insurmountable and perhaps the day will come when more and more of our national magazines will turn to offset lithography.★★

Below are magazines being produced by offset by Haynes Lithograph Co., Silver Spring, Md.



Cost study shows offset ahead in production of a 110,000 run quarterly

By P. R. Russell

Nashville, Tenn.

A QUARTERLY publication (7 x 10"; circulation, 110,000) is being produced in the writer's plant by offset lithography. This modern plant has both letterpress and offset facilities, and it is interesting to analyze somewhat the factors which make this job favorable to offset lithography. The first reason for going to offset was to make the job more attractive. But an examination of costs indicates that it also is more economical in this case to produce the periodical by offset.

Specifications are important, of course. The magazine in question is 64 pages and cover, trim 7 x 10 inches. Cover, printed two colors on basis 20 x 26-65 lb. colored antique Tuscan and body on a 25 x 38-60 basis, medium quality white offset. The average issue has a halftone on every other page, one-quarter or one-half page to each one. Cost of halftones in an average issue approximately \$265.

This periodical is a quarterly with a circulation of 110,000 per issue. The body is being run on a 42 x 58-inch sheet on a 42 x 58 offset single color, and cover on a 21 x 29-inch sheet on a 22½ x 35-inch two color offset—the cover being 2 up of 4 pages on this sheet, work and turn. This means 220,000 impressions on the body and 55,000 on the cover.

If done letterpress in this plant, the most economical line-up would be as follows: Sheet, 42 x 58-inches; press, 4/0 Miehle M. F. Cover: Sheet 21 x 29-inches; press, Miehle 41 two-color. Impressions for body, 220,000; for cover, 55,000.

Comparative preparation time follows:

Makeready:

Offset, 1.5 hrs.; letterpress, 12.6 hrs.

Plate costs:

Offset (actual), \$663; letterpress, (standards) \$365.72.

Running time:

Offset, 46.2 hrs.; letterpress, 249 hrs.

Total press costs including inks:

Offset \$1,222.08

Letterpress 1,734.69

Press costs, plates and engravings:

Offset \$1,885.08

Letterpress 2,361.54

Bindery costs (offset more because sheet has to be cut in bindery, while letterpress sheet is split on press):

Offset \$1,954.49

Letterpress 1,839.60

Body and cover materials (same for both processes):

\$6,294.06.

In your letterpress unit, to reproduce the cuts properly, you will have to use at least a 60-lb. machine coated sheet, which will cost the same as the 60-lb. offset for the body. The Tuscan cover works equally well on both offset and letterpress. It would require a more careful check than the writer was able to make to say that there would be much difference in the cost of the inks on the different processes.

Now for comparative totals:

	Offset	Letterpress
Plates and		
presswork	\$1,885.08	\$2,361.54

Bindery costs ..	1,954.49	1,839.60
Materials	6,294.00	6,294.00

Totals \$10,088.63 \$10,495.20

Composition is not included as it would be the same. A little subtraction would indicate that it will take 210 less production hours by offset than by letterpress, although hour costs are higher.

Printers familiar with letterpress facilities for periodicals may have to be reminded that a sheet with so many cuts cannot be printed on a Miehle Perfector, though sheets containing a few cuts, even halftones, are being done on this type of press. If this job could be done on a 5/0 Miehle Perfector, 32 pages back to back, the press cost would fall considerably under that of offset.

A Rotary press would do this job cheaper than offset, but for one item. Our plant has a Hoe rotary capable of running this size job in two runs, 16 pages to the cylinder. Allowing 69 hours (slightly more than offset requires) for lockup, makeready, and running, with cost of plates (curved plates cost more than flat plates), and adding the original cost of halftones, would give the following totals:

	Rotary
Plates and presswork ...	\$2,193.85
Bindery cost	1,839.60
Materials	6,294.06
Total	\$10,282.51

Since the rotary also folds, there would be a \$738.08 difference in this bindery operation, leaving a net of \$9,544.43, but . . .

This apparent letterpress advantage is more than wiped out when our production manager informs us that the sheet on the rotary will have to equal a trim of 9 x 12-inches, an increase that makes the rotary figures even higher than the 4/0 Miehle single.

This same plant is printing the largest circulated church periodical in the world, doing presswork and folding of the body on a rotary press, but doing the four-color cover offset, two runs on a 42 x 58 two-color. Letterpress cannot match quality,

(Continued on Page 115)

Photo-Composing

An Introduction

By Charles W. Latham

THE ability to make multiple images from one original image belonged to lithography many years before any other reproduction method had much success along those lines. It is quite evident why it is so necessary to be able to make good multiples easily. If we had to make all our postage stamps from one original plate, one image up, we could not possibly satisfy the demand, and the cost would be prohibitive. If we had to make our multiples by re-drawing or re-engraving many originals, the cost would also be beyond reason and no two would be alike.

Almost as soon as lithography became a recognized method of reproduction, around 1800, men started thinking about ways of making duplicates of hand-drawn originals. Such presses as were available were slow, and pulling a hundred impressions was a full day's work. On the other hand, these presses were large enough to print a sheet the size of some daily newspapers; over twenty inches square. Imagine printing one small label or cigar band at a time and getting only one hundred a day.

As most of us know, lithography started with stone as the image base, and the natural goal was to fill the stone surface with multiple images so that when a sheet came off the press it was fully covered with images. In this way many thousands could be printed in one day. A method of doing this was devised. It became known as "hand transferring." This method is still used today to some extent. Twenty years ago it was a very flourishing craft. Hand transferring consists of drawing

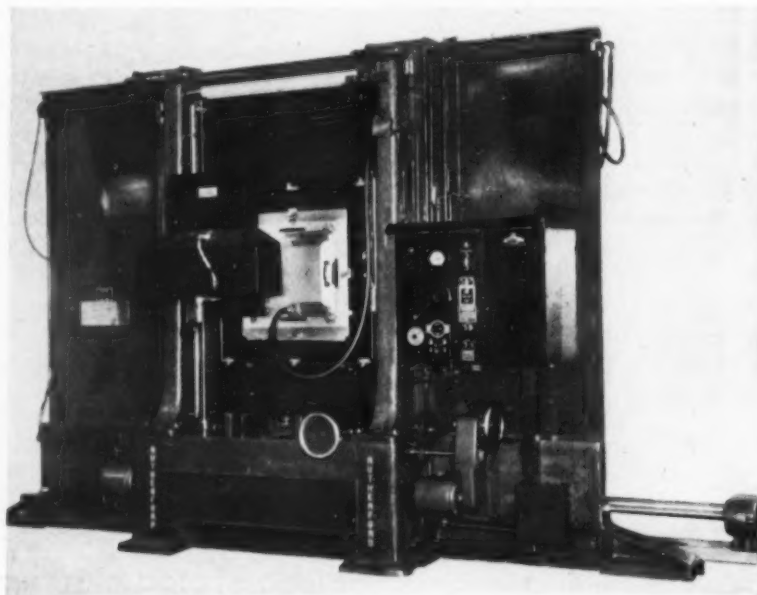
one original on a small stone, and from that original image, many impressions may be pulled on stock which resembles decalcomania paper. These "transfers" are then laid down in position on a large ruled sheet or keyboard. This in turn is laid face down on a large stone or metal plate. Pressure is applied and the ink of the transfer is anchored onto the stone or the grain of the plate. The paper is then soaked off with water and we have a group of duplicates

on one plate or stone from which to print.

The letterpress printers had the same problem, but it was not so easily nor satisfactorily solved. They wanted duplicates of their wood cuts and engravings. At that time there were no halftones. They had been working with stereotypes since about 1736, but these were not too successful until brought to America in 1817. Electrotypes of cuts and engravings were developed about 1840. It is

Below: The Rutherford P.L. model. This is an upright machine made in three sizes. The P.L.—B takes plates up to 48" x 59" and negatives up to 28" x 32". The P.L.—C takes plates up to 50" x 69" and negatives up to 28" x 32". The P.L.—D takes plates up to 58" x 78" and negatives up to 30" x 40".

Opposite: The Lanston Monotype-Huebner vertical machine, a pedestal-type made in four sizes: The M-H 2 takes plates up to 30" x 43"; The M-H 3, plates up to 41" x 54"; The M-H 4, plates up to 46" x 68"; The M-H 6, plates up to 54" x 76". The larger sizes have two pedestals, the smaller one has a single pedestal. All accommodate negatives up to 28" x 40".



interesting to note that before 1855 photography had made little headway in the graphic arts and there was no successful halftone, as we know it now, until 1855.

Lithography was, up to that time, the only method that could simulate fine graduated tones by means of dots. These fine dots were produced by the drawing crayon when worked on the grained stone. Beautiful work was being done in both black and multicolor lithography many years before letterpress could even approximate it. Collotype, however, started producing tones even finer than lithography in 1855, by use of continuous tone negatives. Letterpress had to wait until 1855 to graduate from its woodcuts to halftone.

As the halftone photographic method in conjunction with use of sensitized glue and albumin plates gained in popularity, certain shortcomings became apparent in the fine art of hand transferring. The greatest shortcoming was the difficulty of exact register. The other was that there

were certain losses of tone between the negative and the final images on the plate. As long as originals were made by crayon, fine details of drawing did not exist to the same extent that the camera picked them out. Usually most of the "drawing" was in the black and the fine details were not repeated in the colors, so hair-

(This article is taken from the new book, "Photo Composing," just issued by the Lithographic Technical Foundation, 131 East 39th St., New York 16, N. Y. This book, by Charles W. Latham, long-time LTF staff man and lithographic consultant, is the first such work ever published on the subject.

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line register was not too important. With the advent of so-called photo-mechanical methods, detail appeared in every color. The images of all the colors had to fit one on top of another with pin point accuracy. Hand transferring could not quite come up to these requirements. The transfer paper could be stretched or distorted when the impression was being

pulled. These transfers were positioned by eye on a stick-up plate with slight variations. Transfers also were subject to further distortion and movement when being drawn through a transfer press.

Not only was register a problem, but the duplicates did not quite match the original. There are certain losses and gains in going from a negative to a plate, from plate to transfer paper and from this back to another plate. Hand transferring did a tremendous job for almost a hundred years, until someone thought of something better.

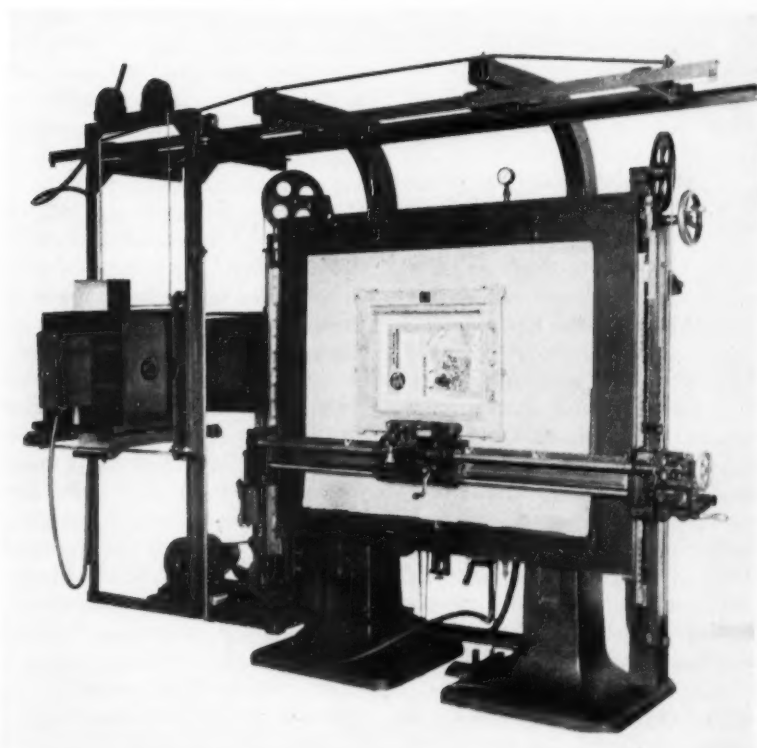
Shortly after the turn of the century these facts were recognized by a lithographer who was gifted with a tremendous inventive and mechanical talent. He began to envision a means of making every duplicate a perfect reproduction of the original and of positioning these reproductions on the plate with precise mechanical accuracy. It would require a machine that would expose a negative directly upon the press plate as many times as was required and do it accurately—expose and shift—step-and-repeat.

There were many problems. Obtaining contact between the negative and the plate was one. Finding accurate means of spacing the steps was another. To interest lithographers in such a machine, when photo plates were a hit-or-miss proposition, was still another; so this man had to improve platemaking along with developing his machine.

In the year 1915, Mr. William C. Huebner finished his first successful machine. This machine would turn out six, seven, or any number of plates, each for a different color. Every color of every image would fit perfectly on top of every other color and each duplicate image was made from the original negative. Mr. Huebner has made and is still making many contributions to the graphic arts, but his first big gift was the photo-composing machine.

Plates with many exposures on them fall into two main categories. The plate where many images of the same subject appears is called a step-and-repeat or "duplicate" plate.

(Continued on Page 113)



Varnishing by Roll Coating

Drying, Curing and Fusing

By H. Audino

Sur-Chem, Inc.

North Bergen, N. J.

THE purpose of this concluding section is to consider the drying, curing and fusing of paper coatings applied to printed paper sheets by the roll coating method, with special consideration given to underlying principles and to the process as a whole.

As long as organic solvent solution type varnishes were limited to a few well known materials, the problems of application and of drying were relatively simple, and previous experience was generally sufficient as a guide. In other words, most roll coating installations were designed for spirit label varnishes and as long as varnishes were confined to that class of materials, and both papers and inks remained unchanged from what the processor had become accustomed to, the danger of blocking, blushing, peeling, odors, excessive slip, brittleness, curling, shrinkage etc. were negligible, considering the fairly wide latitude permitted by the materials involved.

However, with the development of special end-use requirements and the accompanying need for special finishes such as lacquers, vinyls, rubbers and synthetic resins, both the technique of application and the drying cycle have become of much greater importance. This is often complicated by the use of special inks and papers so that with little

or no previous specific experience with these new materials, the processor is often baffled by end results.

Drying

In the narrow sense, drying means the forced evaporation of organic solvents from the varnish by heat to the point where the varnished sheets are free of solvents, and cooling the varnished sheets sufficiently so that they can be stacked safely at the delivery, regardless of atmospheric conditions and pressure due to height of load. Three basic conditions must be satisfied, namely:

- (a) The varnish must be of the type which dries by simple evaporation of the solvents present.
- (b) The varnish must be dried free of solvents.
- (c) The varnished sheets must be cooled sufficiently to permit stacking.

In view of the foregoing, let us suppose that condition (a) is satisfied and that none of the resins present will remain tacky when free of solvents but will be well within the permissible softening range when dry and at room temperature. It still does not follow that a drying cycle patterned after that used on Manila gum will do the job because some of the solvents present may be much slower than alcohol, or, for the given conditions, a considerably

longer time may be required for the given resin to be freed of solvents. Plainly this calls for either more time at the same oven temperature, a higher oven temperature, or a combination of both. In any case the varnished sheets will come out hotter and hence in need of more cooling, which in most cases cannot be readily improvised except by increasing the time for cooling before reaching the pile. Therefore, under the given condition, slowing of the equipment with no increase in temperature appears as the most logical course, if conditions (b) and (c) are also to be satisfied.

In actual practice no one willingly slows down production below normal speeds when applying a varnish which dries by simple evaporation. Instead smaller loads are made; the sheets are rolled if paper is involved, or stood on edge if cardboard is being run. The second and third steps are at times necessary to permit the heat in the material to induce more evaporation of solvents than would otherwise occur if the sheets were piled in small loads, and standing on edge should be given preference and time enough to be effective, particularly if processing and packing brings about a face to face pressure contact of the varnished surfaces as in the production of folding cartons. On the other hand, when

work is to be varnished on two sides. It is generally safer to increase time at the expense of temperature and if cardboard is involved, slip sheeting may become necessary unless special varnishes with high block resistance are used.

Forced drying by heat is not always necessary to dry varnishes and lacquers. For spirit label varnish and some lacquers it is possible to dry satisfactorily at room temperature by blowing room air on the varnished sheets provided the stock is sufficiently heavy to resist excessive cooling (mounted work) and the relative humidity is sufficiently low to avoid blushing. In this instance, a thin film, heavy in solids and of low viscosity is called for, while if lacquers are used, a combination of resins and solvents should be used so that the slower solvents present in the lacquer will not affect the softer modifying resins.

Under certain conditions high temperatures may produce a "skin effect" with a soft underside, and in some cases "orange peel" and "foaming" may mar the finish seriously. In the first case re-softening may occur in the pile particularly near the center of the load. This, coupled with the higher temperature generally present in that section, may bring about blocking. For best results in hot air ovens it is preferable to use ovens designed to provide a gradually rising temperature beginning from the feeding end. A properly designed radiant heat drier, using lamps in the drying section, offers an efficient alternative to the conventional hot air oven installation, and this has the further advantage of being less desiccating in its drying action.

With varnishes that require curing, the time needed to bring about setting at room temperatures is impossibly long, and in practice this possibility is of no practical significance. Drying by conventional hot air ovens speeds enormously the process of setting, but in most cases it is not advisable to use excessive oven temperatures because paper can be degraded rapidly in a hot, dry, turbulent atmosphere once the solvents

are removed. On the other hand if the resins are fast setting, the varnish solution left over may gel on standing and introduce excessive waste unless the process is continuous, and the varnishes are formulated with accelerators just before using.

This concluding article in the series deals with drying, curing, fusing, blushing and safety in varnishing operations.

There are two broad classes of materials of the type under discussion, the kind that dry largely by oxidation and the kind that set largely by polymerization. The class which dries largely by oxidation requires the addition of a metallic drier, and the action probably is very much like the drying of a drying oil such as linseed, tung and others. Thin films of this type can be set sufficiently to permit stacking, and self-curing in the pile will do the rest. The second class of materials which set largely by polymerization are of the urea-formaldehyde-melamine type and these materials require an accelerator, usually a mild acid. Hard, brilliantly clear, smooth and stable finishes of this type can be obtained, but in general curing by secondary heating is required, and this is considered in greater detail hereunder.

Curing

In the application of paper finishes by the roll coating method, time is important not only from an economic point of view but also in terms of end results. In other words, the process depends on speed because the application is on paper, and because varnishes above a relatively low viscosity cannot be applied without ridging. This means that since papers are absorbent no time must be lost if the varnish is to be kept on the surface where it will do the most good. Furthermore, the varnish on the sheet must be thickened by solvent evaporation in a relatively short

time (seconds) to minimize possible bleeding of inks.

When the varnish is first applied in a thin wet film, a dual process of absorption and evaporation is initiated, with a relatively rapid cooling taking place outside of the oven, particularly if the paper is light in weight and alcohol is the principal solvent. Within the oven, the temperature build-up should be no higher than is required to remove the solvents present because thereafter water is removed from the paper at a relatively high rate, particularly in hot air oven installations.

As previously pointed out, certain classes of resins need additional temperature and time to set, and the most effective way to do it is to raise the sheet surface temperature as quickly as possible after the solvents have been driven off. Since heat is transferred most rapidly by radiation, an electrically heated section is used for this purpose, and in a matter of seconds (2 to 5) a rapid rise in temperature is induced on the surface of the sheet of paper, where it is most needed. Thereafter the sheet is passed through a still atmosphere and the temperature of the work drops rapidly, because the back of the sheet which did not rise as much in temperature acts as a coolant, and heat is lost by conduction and radiation to cooler surroundings. Provided the drying cycle has been carefully determined, no blocking will take place, although the work is relatively hot and will continue to stay hot because of the poor heat conductivity of a pile of paper sheets. Thereafter time is no longer measured in seconds but in hours, and although the temperature is relatively moderate, the time at which the work stays at or near the temperature of delivery is usually enough to produce effective curing.

From the foregoing explanation it can be seen that curing as such is not complete at the time of delivery but is largely a surface condition. If the curing were stopped at that point, the finish would be deficient in hardness, chemical resistance, and other desirable properties. This is the principal reason why it is difficult

to treat sample sheets satisfactorily and also to evaluate finishes of this type properly with limited runs. On the other hand, a completely cured varnish film may also be undesirable because in many cases the finish would become excessively brittle and the varnished paper would lack flexibility and tend to curl.

Fusing

So far we have touched on varnishes that dry by simple evaporation; others that dry through the action of metallic driers, and still others that set through the action of accelerators such as mild acids.

In general the second and third classes of varnishes gives more brilliant finishes than are possible with the first type. However, there are finishes of the first type which do not dry satisfactorily by a process of simple evaporation. These are the film casting types such as the vinyls of the acetate-chloride copolymer family. These materials, when dried in a conventional manner, lack adhesion to the underlying surface and require a fusing treatment to bring about proper adhesion and maximum gloss. This fusing treatment is obtainable by the same method described for curing except that cooling must then be applied to the work if blocking is to be avoided. This can be accomplished by giving the work sufficient time to cool before reaching the pile, or by means of forced cooling if the time of travel is too short. In any case all solvents must be driven off before the work reaches the pile, because these materials and others which can be re-softened enough to flow, show relatively low softening points, and this property becomes exaggerated in the presence of solvents.

Blushing

Mention has been made of blushing, which may be defined as a change in appearance ranging from a complete loss of gloss to actual whitening of the finish, very much as if the finish had been sprinkled with a fine white powder. This condition can best be observed on black, dark blue and red colors, and can be detected readily by allowing a varnished sheet to dry at room temperature. In most instances blushing

is brought about by condensation of atmospheric moisture on the wet film due to rapid evaporative cooling, particularly when alcohol is present. This condition can be corrected by using a heavier solids concentration in the varnish (less cutting), and by introducing slower solvents, should ridging rule out the use of more solids in the varnish. Blushing is usually encountered during hot, humid summer conditions and is aggravated by wet inks which do not hold the varnish on the surface. There is some question as to whether wet inks actually cause a precipitation of certain resins from the varnish or introduce more local cooling due to penetration.

Progressive blushing in the pile can be explained by either assumption, and is always more pronounced when drying is incomplete. Whether a given varnish has tendencies to blush under prevailing atmospheric conditions can be established by pouring some varnish in a wide mouth jar and sloshing it in a circular motion so that the sides of the jar are coated by a thin wet film. If the varnish turns white along the sides of the jar, it can be taken as a sign that the varnish is prone to blush. Sheets which have been varnished and have blushed can at times be saved by re-varnishing.

Safety

Varnishing is essentially a hazardous operation and careful attention to safety regulations is essential to avoid fire and disastrous explosions. When air and common organic solvent vapors are mixed in concentrations of from 3.5% to about 20% by weight, the resulting mixture is explosive and in practice care must be taken to keep the solvent concentration well below 3.5%, the safe limit specified by the National Board of Fire Underwriters being about $\frac{1}{4}$ of this amount by weight. This concentration is maintained by bleeding the oven, the requirement being 10,000 cu. ft. of air exhausted at room temperature for every gallon of solvent evaporated. Therefore, to set the oven at the right point, the largest possible consumption is taken as a base, taking into account sheet

size, speed, weight of finish applied and percent of solids in the varnish. In this connection it should be noted that approximately twice as much solvent is present in a 20% solids lacquer as against a 40% solids spirit label varnish and that approximately 90% of the heat carried into the oven by heated air is carried away from the oven by the solvent-air mixture. For operating temperatures above 250°F, the amount of air exhaustion required is multiplied by 1.4

It can readily be seen from the above considerations that a drying cycle based on boiling the solvents away from the finish with insufficient bleeding is hazardous in the extreme, because when starting up and during stops the concentration of solvents in the oven must pass through the explosive range, first upward and then downward. Besides, while the vapor-air mixture is not explosive above about 20%, it is still flammable. Solvent-air mixtures commonly met with are self-ignited when heated to as low as 500°F.

Of equal importance is the question of safety to personnel from contact with materials in the varnish, contact with solvents and from solvent fumes. Solvents of the aromatic type of hydrocarbons such as toluol are considered more hazardous to health than petroleum solvents such as V.M. & P. naphtha, and sufficient ventilation must be provided to keep solvent concentrations to within permissible limits. For this and other reasons, it is always well to check with the supplier on what solvents are present and in what concentration, and to check with the State Dept. of Labor on safety requirements.

Summary

(1) The drying of varnishes applied to paper sheets usually consists of passing varnished sheets through a conveyor oven maintained at a constant temperature by means of rapidly moving heated air, whereupon the organic solvents present are removed by a combination of temperature and exhaustion of the solvent-air mixture to the outside atmosphere. Drying also may be accom-

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Production Control—*Plus*

By Jacques J. Tisne

Executive Vice Pres. and Treasurer
Schlegel Lithographing Corp.
New York*

WHAT is Production Control? Classically it is defined as, "That system which extending over a period of time, controls the order of movement of the elements of a productive program in relation to each other and to the whole."

To make it apply more directly to our field we might redefine it: Production Control is that system which provides a means whereby all the details in production can be intelligently planned in advance and efficiently performed at a predetermined quality level, within a definite time, and within a definite cost limit.

I think you have to look at this matter very much as you would that of conducting the business as a whole. Obviously, it has a sales angle. I suspect that most of you, certainly those who are salesmen, would be apt to emphasize this aspect of it most. And without question the ability to meet schedules and delivery dates is a basic test of good management. Particularly is this so in a service industry such as ours where jobs are manufactured on customers' orders. There is, however, another sales aspect which I think does not receive sufficient attention. That is the extent to which production planning can help to indicate to the sales department the kind of orders they should be placing emphasis on obtaining in order to keep the plant operation in best balance, and insure the fullest utilization of equipment and personnel.

Then, of course, there is the manu-

facturing aspect. Only through proper production planning can the greatest precision of operation be obtained. Its absence brings in its wake idleness, waste, high cost, and inevitably, the inability to meet delivery dates.

Finally, there is the financial aspect. Business, as never before, is constantly striving to increase or at least maintain its working capital—no small feat these days. Only through proper production planning can we make the most of every dollar. How large shall our inventories be? Remember that excess inventory represents idle dollars. How can we increase our various turnover ratios without the proper control of production? Remember that the benefit to be derived from producing more from the same capital dollar means a greater net on that dollar.

What then are the basic requisites to successful production control and scheduling? Briefly, they can be condensed into four general headings.

1. Know your specifications. The kind, quantity and quality of materials required and the time necessary to obtain them.
2. Know the methods of performing the required manufacturing operations.
3. Know the productive capacity of your equipment and the time required for each operation.
4. Know the limits of quality necessary to effect the delivery of a satisfactory order.

* Introductory remarks of Mr. Tisne in opening a panel discussion on Production Control and Scheduling at the January 13 meeting of the Young Lithographers Assn., New York.

These are the basic prerequisites for the original planning. But schedules, like New Year's resolutions, are easier to make than to keep. The maintenance of a schedule will bring out all the flexibility, resourcefulness and ingenuity at the command of your supervisory production staff. It is on them that you have to rely for actual performance. Incidentally, I recently ran across a definition of a supervisor that I liked: "a person possessed of super vision, hence asked to perform the tasks of superman."

Without any attempt at discussing them I should like to list a few of the problems that challenge the supervisor in living up to his schedule.

1. Absenteeism
2. Breakdowns
3. Interdepartmental conflict
4. Poor intra-company communication
5. Errors
6. Faulty materials
7. The rush job

In connection with the last of these, I would like to make this observation. We are all apt to be reluctant to throw overboard a carefully worked out schedule and sacrifice the time and effort that went into its preparation. Yet, it's only if those in charge are willing to go along with rush orders that the various departments and people will go along. Accept the desirability of being a quick-change artist, and the feelings of those under you will probably reflect your own. The first step is *your* psychology.★★

Academic Lithography

Copy preparation is the key

By Haviland J. Reves

Detroit, Mich.

Part 2

COPY preparation is the key to Edwards Brothers' business, as the camera and layout work constitute the heart of production. Contact with the client is a combination of sales promotion and educational or "missionary" work, necessarily functioning within the professional standards set by the academic world, the field in which the firm specializes.

The sales department includes one full time saleswoman in New York City handling publisher and other contacts there, and eight salespeople in Ann Arbor working chiefly through direct mail. Very few of the clients of the firm, perhaps one in ten, ever see the plant. Some of the salesmen travel the Midwest during the winter. Promotional direct mail is sent extensively to both educational and commercial prospects. A little advertising is used in academic publications. The problem is to find the man, probably in the sheltered community of some college, who has a book project under way, and who can benefit by such publication. Selling is based largely upon the service which publication will mean to a given field, rather than the possibilities of financial profit to the author-publisher. Detailed study of the sales literature further makes it evident that the firm does not use the mercenary appeal of the "vanity publisher."

The big problem, once the client expresses any interest, is to present

him with an outline of alternatives, and a plan for publication suited to his needs. Long experience in specialized fields has given Edwards Brothers an excellent know-how of requirements, and they have learned from the experiments and mistakes of past authors. Thus they may have a much better understanding of how a physics classroom manual should be made up than a physics professor with no personal experience in publishing. Sometimes it is a matter of advising for or against certain type, or discouraging the use of too great a reduction because the result would mean a book difficult for the students to use in class.

Helping Customer With Copy

Education of the customer in copy preparation is thus necessary — remembering that he is not only paying the bill, but is usually very limited in his budget. The customer is usually totally ignorant of printing requirements, and needs information starting with the fundamentals. The individual customer may well mean a one-shot sale, not a series of jobs, so that selling and instruction too must be systematized.

"Author's Guide to Lithoprinting," a 40-page 8½ x 11" book is the medium utilized — about 10,000 of these are sent out annually. The content of the book is changed regularly to keep abreast of changing developments. A fine example of lithoprinting itself, the book goes into extensive details on about every problem likely to arise in the mind of the prospective publisher, as well as the things he should learn. Separate chapters give a good general groundwork in each phase of the process, including preliminary planning, composition, photography, layout, presswork, paper, cover, binding, costs and publishing.

Samples of binding and of halftone reproductions upon various grades of stock are enclosed in a pocket. Detachable perforated sheets provide all the detailed information necessary to prepare a quotation — a good exam-

Cold type is a fine art at Edwards Brothers. Here is the company's composition room.



ple of systematic condensation based upon the company's experience of requirements. Numerous samples of various possible types of work are included.

Only about a quarter of the work printed is composed within the plant. A substantial portion consists of re-print work of out-of-print volumes. Some textbooks are reprinted regularly at annual or greater intervals, with a few pages altered for corrections or for additions. Other works are simply reprinted in order to make them available to the limited audience that can use them. Such work is, of course, relatively simple and routine, and inexpensive.

But the greater amount of composition work in the academic field is handled by the authors themselves, following the Edwards plans. Sales literature conveys the important message that the teacher can have the manuscript prepared for the press right in his own office, and that the cost of composition can thus be reduced accordingly. This may mean typing by the author himself in some instances—but more likely by a student secretary.

Model paper is supplied by the firm, prepared in standard sizes which provide the best and most economical reductions for the preferred book sizes. Experience in the

field and standard sizes of equipment largely determine these factors. A special 16-page booklet has been prepared for this purpose, covering the essentials of book make-up in simplified form, from the cleaning of the typewriter used, to the preparation of a job assembly sheet. Suggested layout of title-pages and cover, position of copyright notice, and handling of footnotes are some of the intricate problems which are clearly presented in this booklet, resulting in a smooth-running job when the finished manuscript comes into the plant for photography.

Some sacrifice of finished quality is necessary if the economy of ordinary office typing is employed, and the customer is given the option. The budget and the intended use for the finished publication will determine the selection to be made. The instruction manual is so simple and so thorough that a careful study of it will enable the author to do the necessary job of editing of copy for the camera.

The composition department at Edwards includes 25 IBM proportional spacing typewriters and 5 DSJ Vari-typers. Samples of type possibilities are sent to the client who is considering having the work done in the plant. The DSJ machines offer the facility of a much greater selection of type than is possible with the

IBM machines, according to the needs of the author—and of course this choice costs more, too.

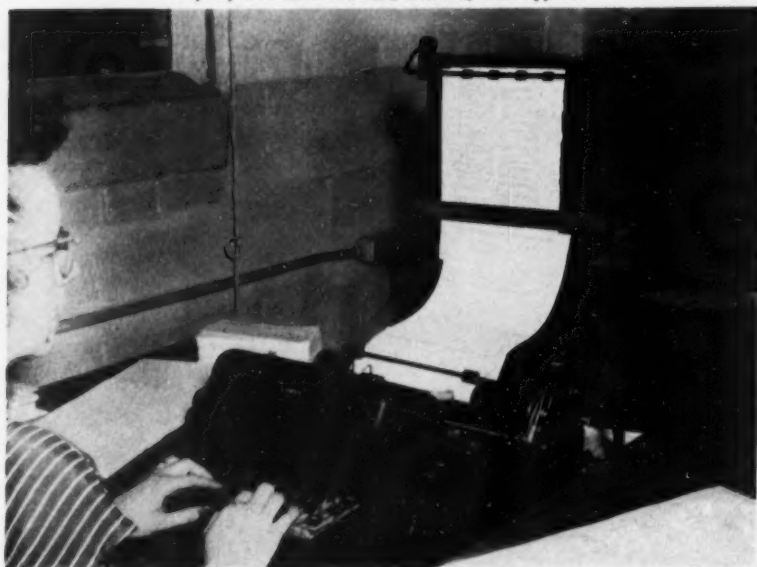
Some books printed here are prepared by composition services outside the plant. During the peak summer season, the composition department may be so overloaded that additional work cannot be scheduled immediately, and the author may have it done elsewhere, turning the material over to Edwards all ready for the camera. Or because of distance, availability of composition facilities, or desire to control format and proofreading, he may have the work prepared elsewhere.

Edwards also processes a considerable amount of Linotype composition. This may be because of operating convenience, or the author's specification as to type and other details. On normal straight copy, it is found that the cost of unjustified office machine composition runs about one-half to two-thirds of what hot metal type would cost. On the other hand, there are many cases where Linotype provides a cheaper method of composition because of its special features, and each job has to be considered individually. It will be noted that there are numerous instances when little or no composition may be done in the plant, and that the full range of available methods is called upon as needed, according to job requirements.

Complicated composition offers special advantages in economy through the use of the firm's composition equipment. This is notably true where graphs, formulas, and tables are involved.

Proofreading may be done either by the firm or by the customer. Teachers usually prefer to do their own. There is of course a proportionate difference in costs—as is true of each of the successive steps into which the entire Edwards processing is broken down. The firm offers a limited amount of editorial service, including routine service on such basic matters as grammar and orthography, in which even some academic authors are somewhat deficient. Thorough editing is available at need, and is of course provided on the

Operator works at an IBM machine. The company has 25 IBM's and five DSJ Vari-Typers.



books which J. W. Edwards publishes.

A recent development is "standardized typewriter format," offered in a new brochure illustrated with a flying stork. The firm has ingeniously solved the problem, common to all business enterprises employing women, of finding that highly-skilled composition operators were taking extensive time off the job because of family additions. The solution was simply to place IBM machines in the homes of some of their operators while they were away from the job, providing them with continued employment opportunity and at the same time offering customers an opportunity for economy.

Since immediate personal supervision is impossible, standardized procedure has been adopted—including typing of all text (including footnotes) on a single machine, underlining by machine instead of by hand, and standard format of heading and pagination. Responsibility for editing and proofreading are not assumed under this plan. The result is that basic composition cost estimates have actually been reduced by one-third to one-half in the past year. Quality of finished work is unimpaired since the same operators and the same machines are used.

School Yearbooks

Typical of a specialized service offered in a specific field is Edwards' work in yearbook production for high schools and colleges—a field in which they have won numerous awards for quality of publication. In place of the regular authors' manual, a special comparable instruction booklet devoted specifically to yearbooks is given to the school or organization, together with mounting boards and a slide rule to use in calculating reductions. Instructional procedure (by manual) has been so simplified that little or no difficulty is encountered in preparing the material.

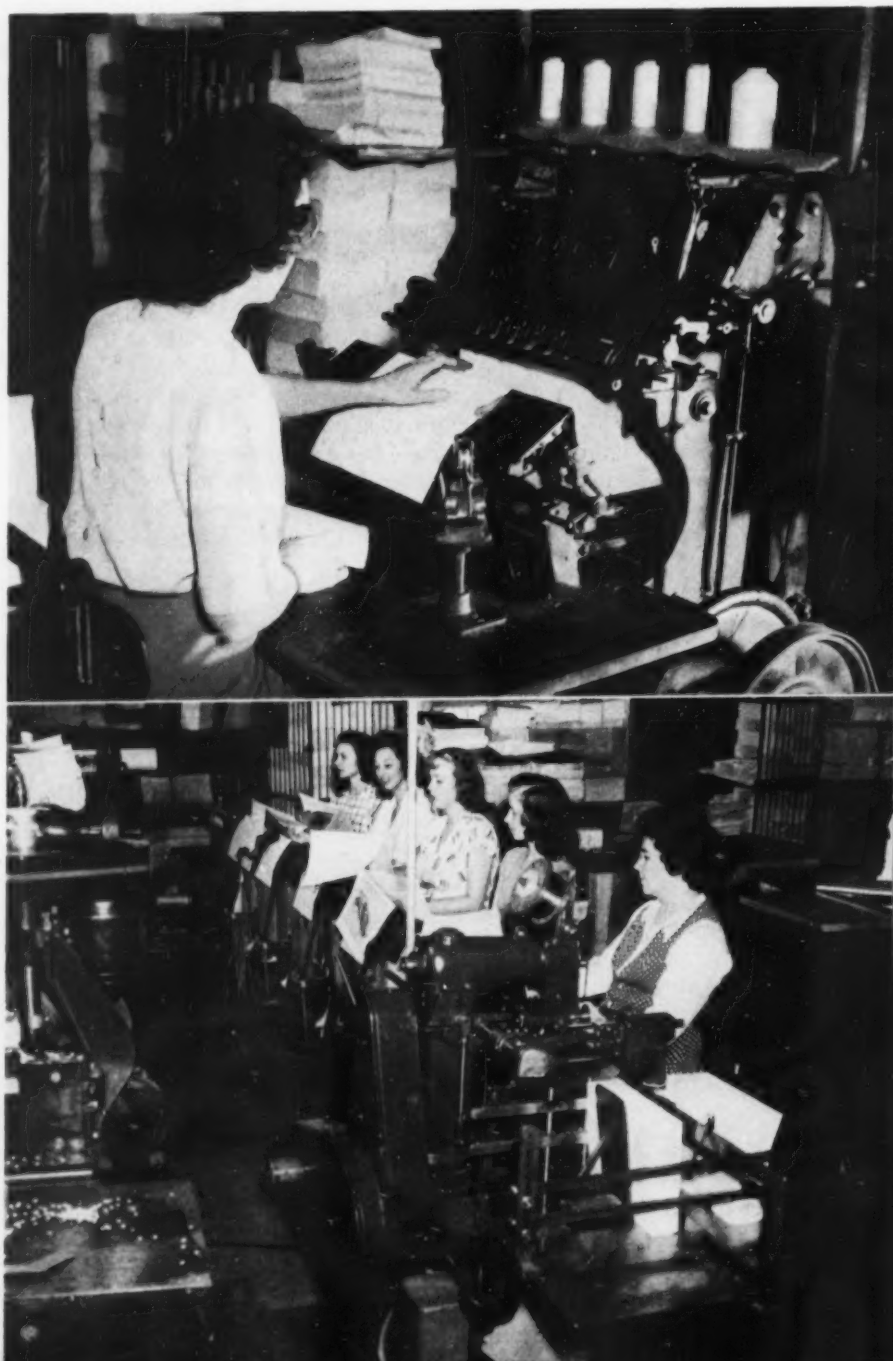
"Pre-screening" is used for yearbooks. The pictures to be used are sent in to Edwards regularly through-

out the school year and halftones are processed. Contact prints are supplied to the school, already screened. These are then assembled by the yearbook editor at will into the finished layout, together with galleys of text, drawing pasteups, free hand lettering or drawing, IBM or typewriter text, product of the school's own print shop or art department, or whatever the ingenuity of the youngsters suggests. The basic requirement is that any type of material which has to be screened is sent in to Edwards in advance for this treatment.

The completed pasteups are then sent to the plant when the book is

completed. The halftone dots are in place, and the job is ready for shooting as straight line work (rather than through a screen), resulting in what is in substance a combination shot. Both economy and speed of production are served by this procedure. The schedule is arranged to make it possible to close yearbooks for a large number of schools within the last four weeks of the school year, and deliver them in time. The schools are naturally delighted with the control which this method gives them over the finished product, the flexibility of production schedule which

(Continued on Page 111)



Top: A sewing machine in the bindery.
Lower, a busy gang-stitcher at work.

Try This for Blind Plates

(From material prepared by the Lithographic Technical Foundation for publication in its Research Progress No. 29. Information on LTF publications is available from the Foundation headquarters at 131 East 39th St., New York 16, N. Y.)

ACCORDING to the Lithographic Technical Foundation there are two main reasons for plates going blind on the press: (1) abrasion of the image and (2) an accumulation of gum on the image.

Abrasion of the image can be caused by abrasive material that may get into the ink such as particles of paper coating or paper filler. Or, the ink itself may be at fault since some ink pigments are more abrasive than others. The most common causes of abrasion, however, are (1) excessive pressure between the plate and the blanket or (2) excessive pressure between the plate and the press form rollers. Any of these conditions can actually wear the image off the plate.

However, LTF believes that most cases of blinding are caused by gum from the fountain solution that has accumulated on the image during the run. In this case, the image is still on the plate. But the gum on it makes the image blind. It wants to take water instead of ink. Obviously, the cure for this type of blinding is to remove the gum. Here is a trick that LTF has found that will usually do the job.

While the press is printing, lift the ink form rollers. Let sheets continue to print until ten or twelve completely blank sheets have been delivered. Then drop the form rollers. Let the plate ink up and begin to print the sheets again. When ten or twelve printed sheets have been delivered, lift the ink form rollers again. Let the sheets continue to feed until ten or twelve blanks have been delivered. Drop the form rollers and let sheets begin to print again. By repeating this operation four or five times you can frequently take all the gum off

the image and restore its ink receptivity.

If this procedure doesn't work, there is a good chance that the plate image has walked off due to abrasion. If the procedure does work, change your fountain solution and reduce the amount of gum you are using.

This same operation done during

the run will often get a plate to print a little cleaner, sharper, and with a heavier ink lay. It also works to remove gum streaks that may have developed after a plate was gummed up on the press.

This may seem to be the wrong way to cure a blind plate, but oddly enough, it has saved many a plate that otherwise would have had to be made over. If you have a lot of trouble with plates that go blind on the press, chances are that you are using too much gum in your fountain solution.

You won't run into blinding trouble due to gum on the image if a non-blinding lacquer such as that developed by LTF was used when the plate was made. Non-blinding lacquer is non-blinding because gum won't stick to it.★★

The LTF Post-Phosphate Treatment

ONE of the most important things that lithographers have learned from LTF's research on platemaking is the effect of residual coating on desensitization. Although these effects are now rather well known, let's review briefly so that we can get the complete story in this article.

A number of LTF's tests proved that a film of any coating that you put on a plate stays there regardless of how thoroughly you try to remove it with the usual means. So, when you develop a surface plate, a thin film of the coating remains on the non-image areas. Likewise, when you clear a deep-etch plate, a thin film of the stencil remains on the non-image areas.

According to LTF, this occurrence is particularly serious with surface plates because the residual coating on the non-image areas is grease receptive. The film is difficult to

desensitize because etch doesn't stick to it very well. When such a plate gets on the press, the desensitizing etch film soon comes off and the plate scums or the image spreads. To counteract this, the pressman may have to run too much fountain solution or too strong a solution. And this is an invitation to tinting, ink emulsification and paper troubles. Most of the troubles that used to be encountered with surface plates were merely symptoms of a basic fault — poor desensitization.

Early treatments to remove the residual coating always failed because whatever solution was used also attacked the image. This is why the chemists at LTF were so pleased to discover that Cronak solution would remove residual coating from zinc plates without hurting the image.

LTF called the treatment "Post-Cronak" because it was applied after the plate had been developed. They

also found that the application of Brunak solution would remove residual coating from aluminum plates.

The discovery of these post-treatments was a real milestone in plate-making technology. They corrected a basic fault that had given surface plates a black eye for many years. LTF now earnestly recommends a post-treatment in all surface plate-making procedures.

Sometime after the development of Post-Cronak and Post-Brunak, LTF was doing some work with a phosphate treatment. It had been developed by the Swedish Graphic Arts Research Institute as an etch for zinc plates. LTF found that it did not desensitize as well as cellulose gum. But, when it was used on zinc plates as a post-treatment with cellulose gum etch, it did a better job than Post-Cronak! In addition, the phosphate solution does not contain bichromate which is always an advantage in lithographic materials.

Comprehensive tests for more than a year have proved that the Post-Phosphate treatment, as it is now called, offers an improved platemaking method for all zinc plates that are etched with cellulose gum etch. Don't use it with a bichromated etch. The two don't mix and cause scum.

Preparation of the Solution

There are two ways of preparing the solution. The first combines all of the chemicals in one solution. This is the most convenient way to make it. However, when the solution stands for a few weeks, a cloudy, hard precipitate sometimes settles to the bottom. The presence of this material does not seem to affect the way that the solution works, but it looks bad. There is also a possibility of scratching the image if any of the hard precipitate is on the plate when it is scrubbed with cotton.

The second method requires two stock solutions. These are mixed together in equal quantities before use. You can mix enough at one time for all the plates that will be made during the day. The stock solution will keep indefinitely.

Post-Treatment Method

LTF's directions for the post treatment are very simple. For surface

plates, all you do is cover the plate with the solution after development. Let the solution stand on the plate for about one minute. Then rinse the plate under gently flowing water. Rub the surface gently with cotton while rinsing. You can etch the plate immediately after the excess rinse water is removed from the surface.

The solution can be applied by (1) pouring it on the plate in the sink, (2) immersion in a tank or tray of the solution, or (3) in a horizontal whirler. The only requirement is to get the solution on all parts of the plate for about one minute.

The plate can be dried after treatment if you want to inspect the image or add work. Make all erasures of work from the plate *before* you post-treat it.

To post-treat a deep-etch plate, on either grained or ungrained zinc, LTF suggests that you first remove the residual stencil that stays on the plate after clearing. You can do this very easily with a clearing solution made by adding three parts of water

to one part of deep-etch developer. Pour this solution on the plate and work it over the entire surface with a wad of cotton for about one minute. Then flush it off thoroughly with water. Squeegee off the excess water and proceed with the Post-Phosphate surface treatment as described.

Conclusion

LTF recommends the Post-Phosphate treatment highly. With cellulose gum etch it does a better job than Post-Cronak and there is no bichromate in either solution. The treatment should not be used if you still use a bichromated etch in platemaking or on the press because the combination will cause scum. However, bichromated fountain solutions of minimum strength have no harmful effect. While the Post-Phosphate Treatment can be substituted for Post-Cronak, it *cannot* be substituted for the PRE-Cronak Treatment.★★

(From material prepared by the Lithographic Technical Foundation for publication in its Research Progress No. 28. Information on LTF publications is available from the Foundation headquarters at 131 East 39th St., New York 16, N. Y.)

FORMULA No. 1

Phosphate Post-Treatment Solution Single Solution Mix

	Metric Units	U.S. Units
Aluminum Sulfate	57 grams	2 oz.
Potassium Nitrate	43 grams	1½ oz.
Ammonium Dihydrogen Phosphate (NH ₄ H ₂ PO ₄)	78 grams	2¾ oz.
Water to make	3785 cc.	1 gallon

FORMULA No. 2

Phosphate Post-Treatment Solution Made with Stock Solutions

STOCK SOLUTION A

	Metric Units	U.S. Units
Aluminum Sulfate	106 grams	3¾ oz.
Potassium Nitrate	90 grams	3¼ oz.
Water to make	3785 cc.	1 gallon

STOCK SOLUTION B

	Metric Units	U.S. Units
Ammonium Dihydrogen Phosphate (NH ₄ H ₂ PO ₄)	184 grams	6½ oz.
Water to make	3785 cc.	1 gallon

For use, mix equal parts of Stock Solutions A and B.

Technical grade chemicals are satisfactory. They are all listed in the Merck Index and should be available from most

chemical suppliers. Ammonium Dihydrogen phosphate is also known as Ammonium Phosphate, Monobasic. Mix them in the order listed. Make sure that each is dissolved before adding the next.



Clark College student adjusts camera setting as part of practical work in offset.



Film is mounted in rear of camera by student in graphic arts program at Clark.



Developing a plate in photo darkroom. Clark integrates various allied courses.

Vancouver College Training Offset Men

PRACTICAL training in photo-offset printing now is offered high school and junior college students in a modern building at Clark College, Vancouver, Wash.

Groups of journeyman pressmen and journeyman printers from Portland, Ore., also are taking night classes in offset work in a 12-week program started last month at the college.

The graphic arts program at Clark, which also includes training in the various phases of letterpress print-

ing, is designed to give an academic and cultural background to students who want to be professionals in the commercial field.

Instruction by three teachers is given in offset and camera work in a building constructed on the campus four years ago to house Clark's diverse program in vocational and applied arts. The graphic arts section occupies two floors of the building.

A full complement of lithographic equipment is utilized in the training program. Shop machinery includes

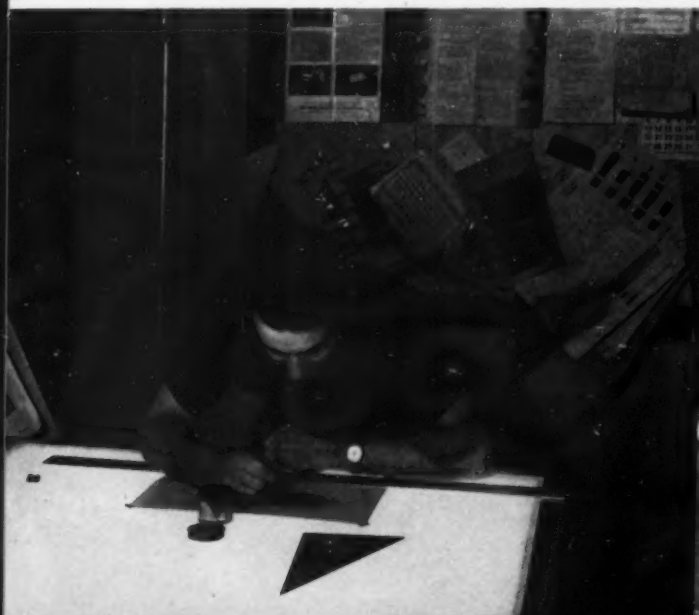
an ATF 17 x 22 Chief offset press, a Multilith, a new ATF darkroom camera, a Brown whirler and layout table, Leedal sinks, a darkroom, a platemaking room and a Douthitt printing frame.

Teaching staff in graphic arts includes D. G. Miller, Louis E. Below and Elmer E. Clausen. The men work under Oliver B. Klossner, dean of the applied arts division.

Training methods include classroom instruction, job work, movies, plant visits and lectures by working printers.★★

Opaquing with standard commercial equipment is part of the training program. Printing students also get lectures on historical and cultural background of printing and reproduction.

Another student gets the press ready for printing in the shop's offset department. Printing classes occupy 6300 square feet of space in college's modern vocational arts building.





Top — Benjamin Franklin Achievement Award of the Los Angeles Printing Week committee goes to radio and TV star Art Linkletter (center) for his work with the nation's "greatest resource," its youth. Presenting the special tray (left) is Doug Daley, chairman of the Printing Week committee. At right is Tim O'Keefe, chairman of the Graphic Arts banquet at which award was made. Banquet attracted a record 800 people. It was sponsored jointly by PIA and the Los Angeles Craftsmen as the highlight of the week-long celebration.

Also presented were the Gutenberg Award to Gordon Holmquist, past president of the Intl. Assn. of Printing House Craftsmen, and the UCLA Printing Excellence Awards to winners of the recent Printing Arts Exhibition at the university.

A highlight among speeches was the one delivered by A. R. Tommasini of the University of California Press before the Advertising Club of the city. He predicted advertisers will be forced to use more color in their advertisements with the advent of color television.

Lower—Proclamation of Printing Week is accepted by Walter Blattenberger, (left) Phila. general chairman and president of the Litho Club, from Walter M. Phillips, city representative. Others are, from left: Noel Rippey, Ptg. Industries of Phila.; Thomas H. McCabe, Jr., PIP; and Alfred T. Snowden, D. L. Ward Co., of the Craftsmen. Raymond Blattenberger, U. S. public printer, former senior vice president, Edward Stern & Co., Phila., was the highlight speaker during the week. C. Howard Thomas, National Publishing Co., was named Man of the Year in Philadelphia Graphic Arts in an award sponsored by W. C. Hamilton & Sons, Miquon, Pa. The award was presented by Lane Taylor, Hamilton president, at a luncheon at the Benjamin Franklin Hotel. Mr. Thomas was one of the founders of the Printing Industry of America and of the Philadelphia association. Extensive exhibits of printing and printing services were shown at the Hotel. Car cards and other publicity throughout the city invited the public to these exhibits. A series of technical clinics also was held. At a Franklin Day dinner at the Poor Richard Club, Henry Ford 2nd was presented with the Gold Medal of Achievement.

Round-up of

THE American public is more conscious of the graphic arts industries and their role in current living as a result of widespread observances of Printing Week, January 17-23. Major cities, as well as many smaller localities, staged many and varied celebrations from coast to coast, and at least as far as Honolulu.

Ferd Voiland, Jr., state printer of Kansas, was general chairman of all Printing Week preparations on behalf of the International Assn. of Printing House Craftsmen. He announced many of the local club chairmen as follows: Fort Wayne, Ind., Clinton Barnes; Harbor Area (Long Beach, Calif.) John S. Sarver; Honolulu, Hawaii, Reinhold Julich; Los Angeles, Bruce Greenberg; Louisville, Walter P. Jobson; Nashville, Page Sanders, Jr.; Richmond, Va., Walter G. Sulzer, Jr.; St. Paul, Gordon Berg.

Also Vancouver, B. C., R. Phillips; Victoria, B. C., Charles Morriss; Waterloo, Iowa, Harold Bills; Winnipeg, Man., Reg. Rimmer; San Mateo, Calif. area, Ken Bowen; Citrus Belt, Calif., Elmer D. Miller; London, Ont., Fred Parkinson; Montreal, Harry Skinner; Boston, Herbert Borden; Ottawa, Gordon Armstrong; San Gabriel Valley, Calif., Robert Graham; Stockton, Calif., C. C. Mulholland; Cleveland, Edward H. Owen; New York, Edward Blank; Philadelphia, Walter Blattenberger.

The Week began with a television network show (NBC) on January 17, Benjamin Franklin's birthday anniversary. Appearing on this half-hour program were William H. Walling, Rogers-Kellogg-Stillson, Inc., New York; George Macy, Limited Editions Club, New York; and Theodore Waller, New American Library.

Printing Week

Radio networks also carried a Printing Week program dramatizing the work of Senefelder in developing the lithographic process. This was carried on a Westinghouse-sponsored program.

Following are highlights of Printing Week observances across the nation:

San Francisco—Twelve nationally-famous employers and 24 veteran printers were given special recognition as part of the Printing Week observance in San Francisco. Another highlight of a full week of varied activities in the California city was a ceremony in honor of Benjamin Franklin. San Francisco has special reason to pay tribute to this famous printer, because a distant descendant bearing the same name and head of the Ben Franklin Press, is a resident of the city. The modern-day Ben placed a wreath at the foot of his ancestor's statue in Washington Square to inaugurate the observance.

Many lithographers were among the employers and printers honored at the annual Graphic Arts banquet in the Fairmount Hotel.

Among the employers honored were Carl Schmidt, Schmidt Lithograph; Adolph Lehman, Lehman Lithograph; Charles M. Paganini, Security Lithograph Co., and B. M. Carlisle, A. Carlisle & Co.

Oldest lithographers honored were Herman Dietrich, pressman, Schmidt Lithograph; Richard Graichen, artist, Schwabacher-Frey; Herbert Grab, plate maker, H. S. Crocker, Inc.; Tod Reed, California Ink Co. and J. E. Jones, Brintnall Printing Supply.

General chairman of Printing Week was Karl Hoffman, Western Lithograph Co.

(Continued on Page 109)



Top—Printing Week in New York included many activities. A highlight was the unveiling of the Twelfth Exhibition of Printing of the N. Y. Employing Printers Assn. Shown here at opening ribbon-cutting ceremony are (L. to R.): Ferdy J. Tagle, principal, N. Y. School of Printing; James M. Secrest, Type Directors Club; Edward Blank, Pres., Craftsmen; Geo. A. Phillips, Pres., N. Y. Adv. Club; Chas. E. Shatvet, Chairman, NYEPA; and Chas. A. McNally, Pres. Allied Printing Trades Council. A mayoral proclamation and a telegram of greeting from President Eisenhower, started off the week. The NYEPA dinner at the Biltmore was a sellout, with about 700 present. Chief speakers were Henry R. Luce, editor, Time-Life, and Dr. Grayson Kirk, president of Columbia Univ. The NYEPA's Franklin Award for distinguished service was presented to Mr. Luce. Another event during the week was the annual luncheon of the International Benjamin Franklin Society which presented its gold medal to Herbert Hoover. An offset platemaking exhibit was open at the Biltmore, sponsored by the Lithographic Platemakers and Engravers Assn. An Eastman Kodak motion picture "Photo-Lithography" was shown.

Lower — Massachusetts Governor C. A. Herter is shown signing the Printing Week proclamation for New England. Seated beside the governor (right) is Herbert L. Borden, Hub Offset Co., Boston, who was general chairman. Standing L. to R. are Albert A. Richards Jr., Bingham Bros. Co., Pres., New England Printers Supply Salesmen's Guild; Charles J. Gushee, Financial Publishing Co., Pres. Society of Printers; Harry M. Faunce, The Rumford Press, Pres. Boston Craftsmen; Arthur T. Howard, A. T. Howard Co., Pres. Graphic Arts Institute of New England; Albert H. Wain, Metropolitan Litho & Publishing Co., Pres., Boston Litho Club; and A. Bradley Emmons, Little, Brown & Co., Pres., Bookbuilders. Mayor John B. Hynes of Boston joined in wreath-laying ceremonies at Franklin's statue. Eight hundred were present at the joint Printing Week-Advertising Club dinner which had Harry Harding, senior VP of Young & Rubicam as speaker. On January 21 the main banquet was held at the Bradford Hotel, with Countess Maria Pulaski, wartime spy, as speaker. One thousand attended this event. Mr. Borden interviewed Louise Morgan on a TV program on printing and publishing in the Boston area.

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LITHO PRODUCTION

Clinic

by Theodore F. Makarius

Counter-Etching; Ghost Images

In our litho shop there is a difference of opinion concerning the strength of the counter-etch we are using on our zinc plates, deep etch, and also albumen plates. We are using Acid Hydrochloric Technical 30% for a counter-etch. What is the correct ratio of this acid to one gallon of water when it is to be used as a counter-etch on zinc plates?

We have a one-gallon clay pot which we fill with water and then pour in the hydrochloric acid direct from the bottle. This is done in a hit or miss fashion as no one seems to know a formula. Some maintain that this counter-etch should be so strong that it "foams" when it touches the plate. Others say that a foaming counter-etch is entirely too strong because it destroys the grain of the plate. Which is right?

Should we use a counter-etch of the same strength for deep etch plates as well as albumen plates, or should the counter-etch be different for each?—New York.

FOR information on the procedure for counter-etching zinc plates I would like to recommend your reading the Lithographic Technical Foundation's booklet #805 "How to Make and Run Better Zinc Plates." The following paragraph, quoted from page 15 of this book, answers your inquiry.

"Counter-etching is the first step in making the plate. It is done to clean the plate surface. The plate must be thoroughly cleaned with as little damage to the grain as possible. The counter-etch is usually a weak solution. Satisfactory solutions for zinc are one ounce

of hydrochloric acid in a gallon of water or four avoirdupois ounces of ammonium alum and twenty drops of nitric acid in a gallon of water."

I believe this answers your question as to the proper strength of counter-etch. In the LTF booklet #804 on deep etch plates, the same counter-etch is given. It would be worth your while to obtain copies of these books as they explain the process thoroughly.

We wonder if you could advise us on a roller, or ghost mark, problem that we are experiencing whenever we run the "L" shaped border on the attached cover. We have tried various inks, such as opaques and transparents, have even changed gripper edge of plate—but with little or no success. Certain colors give more trouble than others; the greatest offenders being the lighter shades.

We have tried two types of rollers—vulcanized and synthetic base materials, without any noticeable change. Have added a distribution roller for better ink distribution, but this did not solve our problem.

Is there a way we can lick this problem? If so please advise.—Louisiana.

Ghosting, when printing borders on an offset press, is a very common problem and can be helped to some extent, but rarely eliminated. The following should be of great help if properly executed.

First, it is important to regulate the dampening mechanism to distribute water evenly so as to run the plate as dry as possible. Second, all rollers

must be set so that they make contact over their entire surface with both the plate and driving rollers. Third, as a further aid to ink distribution it is good to have on hand several rollers with a nap or eggshell finish for use in such emergencies.

I have found that a leather covered roller placed between the inking drum and rider or distributing roller can be of great help too. There should be two of these rollers, one in the front and the other in the rear of the inking drum. These leather rollers should be smooth rather than grained; in other words, the leather should be right side out. The leather can be roughened with sandpaper when necessary, and, since there is no setting required, they can be interchanged easily. This is important for these rollers must be washed by hand in order to get them clean. A vulcanized oil roller with an eggshell finish also will serve the purpose, but since the rough finish does not last, it is better to use the leather as it can be roughened more easily.

Finally, the proper care of inking rollers is essential to good printing and the following paragraphs on this subject should be helpful.

Regardless of the covering used on inking rollers, be it rubber or vulcanized oil, the same precautions

(Continued on Page 121)

Technical

SECTION

Air Conditioning at Palm Bros. Decal. Co.

By William H. Junker

Mechanical Engineer
Frankenberger, Junker & Lemaky
Engineers and Architects, Cincinnati

THE moisture sensitivity of both materials and equipment used in the lithographing industry is well known, and necessitates rigid humidity control in all stages of production for highest efficiency and quality. The installation of humidity conditioning at the Palm Brothers Decalcomania Company, Cincinnati, enables the company to simplify and standardize procedures, increase production and maintain product quality.

Paper is just one of many hygroscopic materials with which the lithographer must deal. However, the effects of moisture on paper are indicative of the difficulties which result if humidity is not controlled. As a hygroscopic material, paper will shrink or swell as its moisture content varies. If not properly stored it will curl, wave or buckle. Exposure to excessively low humidity will result in the accumulation of static electricity. Often loss of production, lowered quality or even complete shutdown result from these conditions.

In lithography, of course, particular care must be taken in the seasoning of paper while in storage if flatness and register in printing

are to be maintained. Because the paper will absorb some of the water used in the lithographic process it is the practice in some plants to forestall consequent dimensional changes and misregister by increasing the paper moisture content while in storage. In these plants, the relative humidity in the storage rooms is kept 5 to 8 percent higher than that of the pressroom. Thus, when brought out for printing, the paper will lose initially the amount of moisture it will gain during the printing operation.

Paper for other processes can be stored at the same relative humidity as that maintained in the pressroom. About 76°F. and 50 percent R.H. is considered optimum for all lithographic needs. A lower relative humidity would be conducive to the accumulation of static electricity in paper, while a higher relative humidity would lead to waving, buckling or curling.

Inks also are sensitive to variations in relative humidity. The rate of flow, distribution on rollers and the rate of drying differ at varying humidities. High humidities cause slow drying, disruption of schedules

and increased operating costs. Low humidities and attendant static electricity can prevent the trapping of air between sheets of paper, thus slowing the rate of drying. With a constant humidity and temperature, these processes can be standardized and the proper addition of driers determined.

The elimination of variables, directly related to temperature and humidity, is the primary benefit of air conditioning to lithographic platemaking. At certain humidities it is extremely difficult, if not impossible, to produce quality plates. Receptivity or sensitivity to light varies and uniformity suffers. Plate coatings tend to soften to such an extent that negatives or positives stick to the plate. The acetate film itself will expand or contract under varied humidities.

Thus, humidity control is necessary in all steps of lithographic platemaking, even to developing and finishing, if loss of press time, increased overtime and expensive schedule upsets are to be avoided, and steady, high quality production maintained.

Variations in pressroom humidity



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also can lead to serious difficulties. Proper storage and seasoning of paper is to no avail if rigid control of humidity is not extended to the pressroom. A fluctuation of only 5% will cause distortion of as much as .03 in. on a 60 in. sheet.

But the biggest air conditioning problem in printing is the elimination of static electricity. Its accumulation in paper interferes with the operation of automatic pile feeders, causing slowdowns and costly stoppages. The excesses of humidity and temperature also affect the rubber rollers; when these atmospheric conditions are too high the rollers soften; when too low they dry out so that inks do not distribute properly.

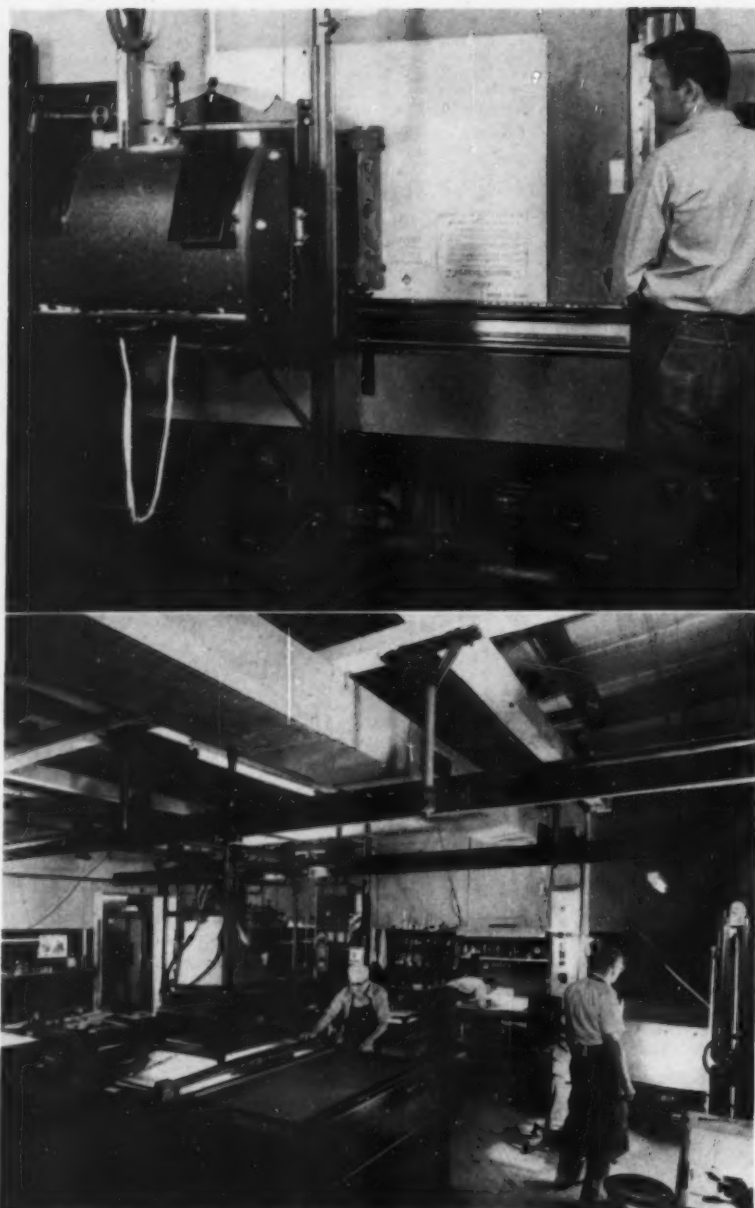
The heat generated by the mechanical and electrical equipment must be carried off by an air conditioning system if overheating is to be avoided.

Besides being able to standardize and simplify procedures, the printer who uses air conditioning as a process tool to provide an optimum production atmosphere also obtains additional benefits in respect to personnel. The comfort provided employees under these air conditions results in improved morale, increased efficiency, decreased absenteeism, maintenance of production schedules and work of better quality.

The Making of Decals

Production problems are multiplied at Palm Brothers by the very nature of the product itself, decals. By definition, a decal, is a picture or a design of many layers made of a heavy film of colored pigments on a temporary paper backing. In application, the design, large or small, one color or many, is transferred from the paper to another object, becoming a permanent part of the object.

Although the film design may be built upon the paper backing by several methods, lithography is most widely used. Special inks and special papers, coated with a water-soluble starch, albumin and glycerine, are required. Ordinarily, decals are printed face down on the coating, one layer or color at a time.



Above: Two views of platemaking operations at Palm Bros. in Cincinnati.

Air Conditioning System

In the new air conditioning system at Palm Brothers, completed in 1952, careful consideration of a number of factors was necessary. The overall plan was to maintain constant conditions in the photo and plate rooms by means of an automatic mechanical air conditioning system. This was accomplished by combining ventilation, heating, cooling, filtering, dehumidification, and humidification as needed by seasonal requirements.

During the heating season the space is heated by steam coils and humidified by a spray humidifier in the air stream. During the cooling season the space is cooled by the refrigerant coils and dehumidified by a Kathabar, absorption-type unit.

The following conditions and calculations of the heating and cooling loads of the cubic feet space to be air conditioned were established as the basis for the system.



4 color offset reproduction

WARREN'S
Lithographic Papers

Lusterkote • Offset Enamel • Overprint Label C1S • Sebago Label C1S

Fotolith Enamel • Silkote Offset

PAPER MERCHANTS
who sell and endorse
Warren's Standard Printing Papers

ALBANY, N. Y.	Hudson Valley Paper Company
ATLANTA, GA.	Sloan Paper Company
BALTIMORE, MD.	The Barton, Duer & Koch Paper Co.
BANNOCK, ME.	Brown & White Paper Company
BATON ROUGE, LA.	Louisiana Paper Company, Ltd.
BIRMINGHAM, ALA.	Sloan Paper Company
BOISE, IDAHO	Zellerbach Paper Company
BOSTON, MASS.	Storrs & Bement Company The Century Paper Co., Inc. Henry Lindenmeyr & Sons
BUFFALO, N. Y.	The Alling & Cory Company
CHAMPAIGN, ILL.	Franklin-Cowan Paper Company
CHARLOTTE, N. C.	Crescent Paper Company
CHATTANOOGA, TENN.	Caskie Paper Company, Inc.
CHICAGO, ILL.	Virginia Paper Company, Inc. Southern Paper Company
CINCINNATI, OHIO	Chicago Paper Company
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CONCORD, N. H.	The Petrequin Paper Company
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DAYTON, OHIO	The Cincinnati Cordage & Paper Co.
DENVER, COLO.	C. M. Rice Paper Company
DES MOINES, IOWA	Olmsted-Kirk Company
DETROIT, MICH.	Hull Paper Company
DUBUQUE, IOWA	Carpenter Paper Co.
EUGENE, ORE.	Western Newspaper Union
FORT WORTH, TEXAS	Newhouse Paper Company
FRESNO, CAL.	Seaman-Patrick Paper Company
GRAND RAPIDS, MICH.	Newhouse Paper Company
GREAT FALLS, MONT.	Zellerbach Paper Company
HARRISBURG, PA.	Olmsted-Kirk Company
HARTFORD, CONN.	Zellerbach Paper Company
HOUSTON, TEXAS	Quimby-Walstrom Paper Co.
INDIANAPOLIS, IND.	The John Leslie Paper Company
JACKSON, MISS.	The Alling & Cory Company
JACKSONVILLE, FLA.	Henry Lindenmeyr & Sons
KANSAS CITY, MO.	Storrs & Bement Company
KNOXVILLE, TENN.	L. S. Bosworth Company
LANSING, MICH.	Crescent Paper Company
LITTLE ROCK, ARK.	Townsend Paper Company
LONG BEACH, CAL.	Virginia Paper Company, Inc.
LOS ANGELES, CAL.	Midwestern Paper Company
LOUISVILLE, KY.	Westgame Paper Company
LYNCHBURG, VA.	Southern Paper Company
MEMPHIS, TENN.	The Weisinger Paper Company
MILWAUKEE, WIS.	Western Newspaper Union
MINNEAPOLIS, MINN.	Arkansas Paper Company
MOLINE, ILL.	Zellerbach Paper Company
MONTGOMERY, ALA.	Zellerbach Paper Company
NASHVILLE, TENN.	Miller Paper Company
NEWARK, N. J.	Caskie Paper Company, Inc.
NEW HAVEN, CONN.	Southland Paper Company
NEW ORLEANS, LA.	Nackie Paper Company
NEW YORK CITY	The John Leslie Paper Company Newhouse Paper Company Newhouse Paper Company S. F. Richards Paper Co. Clements Paper Company Henry Lindenmeyr & Sons Storrs & Bement Company Henry Lindenmeyr & Sons Alco Paper Company, Inc. The Alling & Cory Company J. E. Linder Paper Company The Canfield Paper Company Marquardt & Company, Inc. Schlosser Paper Corporation
OAKLAND, CAL.	Zellerbach Paper Company
OKLAHOMA CITY, OKLA.	Western Newspaper Union
OMAHA, NEB.	Field Paper Company
PHILADELPHIA, PA.	D. L. Ward Company
PHOENIX, ARIZ.	The J. L. N. Smythe Company
PITTSBURGH, PA.	Schuylkill Paper Company
PORTLAND, ME.	Zellerbach Paper Company
PORTLAND, ORE.	The Alling & Cory Company
PROVIDENCE, R. I.	C. M. Rice Paper Company
RENO, NEV.	Zellerbach Paper Company
RICHMOND, VA.	Narragansett Paper Co., Inc.
ROCHESTER, N. Y.	Zellerbach Paper Company
SACRAMENTO, CAL.	B. W. Wilson Paper Company
ST. LOUIS, MO.	Virginia Paper Company, Inc.
ST. PAUL, MINN.	The Alling & Cory Company
SALT LAKE CITY, UTAH	Zellerbach Paper Company
SAN ANTONIO, TEXAS	Beacon Paper Company
SAN DIEGO, CAL.	The John Leslie Paper Company
SAN FRANCISCO, CAL.	Newhouse Paper Company
SAN JOSE, CAL.	Zellerbach Paper Company
SEATTLE, WASH.	Zellerbach Paper Company
SHREVEPORT, LA.	Zellerbach Paper Company
SPOKANE, WASH.	Louisiana Paper Company, Ltd.
SPRINGFIELD, MASS.	Zellerbach Paper Company
STOCKTON, CAL.	The Paper House of New England
SYRACUSE, N. Y.	Zellerbach Paper Company
TOLEDO, OHIO	The Alling & Cory Company
TRENTON, N. J.	The Commerce Paper Company
TROY, N. Y.	Henry Lindenmeyr & Sons
TULSA, OKLA.	Troy Paper Corporation
WACO, TEXAS	Tulsa Paper Company
WALLA WALLA, WASH.	Olmsted-Kirk Company
WASHINGTON, D. C.	Zellerbach Paper Company
WICHITA, KAN.	Stanford Paper Company
YAKIMA, WASH.	Western Newspaper Union
	Zellerbach Paper Company

EXPORT AND FOREIGN

NEW YORK CITY (Export) National Paper & Type Co.
40 cities in Latin America and West Indies.
NEW YORK CITY (Export) Muller and Rothe, Inc.
20 countries in Latin America and West Indies.
NEW YORK CITY (Export) Muller & Phipps (Asia) Ltd.
Belgian Congo, Burma, Ceylon, China, Hong Kong,
Island, India, Malaya, Philippine Islands, South Africa.
AUSTRALIA B. J. Ball Limited
NEW ZEALAND B. J. Ball (N. Z.), Ltd.
HAWAIIAN ISLANDS Honolulu Paper Co., Ltd.



Photograph by Grignon for Deltex Rug Co.

WARREN'S
Lithographic Papers

Lusterkote • Offset Enamel • Overprint Label C1S • Sebago Label C1S
Fotolith Enamel • Silkote Offset

Warren's LUSTERKOTE COVER provides a mirror-like glossy surface that contributes brilliance to the highlights and colors in lithographic reproduction. Now available with the lustrous finish on both sides of the paper.

Warren's OFFSET ENAMEL is a double coated paper for the printing of pictures by offset lithography. Double coating improves printability and uniformity, resulting in a higher potential of lithographic reproduction. Offset Enamel is available in glossy finish, Saxony finish, and dull finish. Also available coated one side only.

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eminently suitable for labels produced by offset lithography or by letterpress. This paper is pre-conditioned by an exclusive process.

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Write for free booklet—"How Will It Print by Offset"

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[BETTER PAPER  BETTER PRINTING]

Printing Papers

Season	Maximum Outside Temp.	Gr/Lb	Maintained Inside Temp.	Gr/Lb	R.H.	Sensible Load Btu/Hr	Latent Load Btu/Hr
Summer (1)							
Cooling	95°F.	118	45.8%	75	65	50%	+40000 +41300 +42000
Winter (2)							
Heating	0°F.	5.5	100%	75	65	50%	-10000 -38000 -18000

(1) Sensible extraction by refrigeration — 74,000

(2) Sensible introduction by heating — 48 lb. of steam/hr.; Latent introduction by evaporation — 18 lbs. of H₂O/hr.

Description of Summer Cycle

In the summer cooling cycle of operation, Figure 1, 500 cfm of filtered fresh air from the factory, at maximum design conditions of 95°F, 118 gr/lb (45.8% R.H.) are brought into the system. This air is mixed with 850 cfm of recirculated air and the total of 1350 cfm, now at conditions of 82°F, 83 gr/lb is passed into the air washer section of the Kathabar unit, Figure 2.

Here the air contacts a flood of the absorbent solution, Kathene, while both pass over cooling coils. It is a unique property of Kathene that the lower its temperature, the more moisture it will absorb. Thus the cooling coils by varying the solution temperature regulate the amount of moisture to be removed. Under maximum conditions 17 gpm of 85°F city water is used in these coils at Palm Brothers.

After completing this dehumidifying pass, the 1350 cfm of air, now at 97°F and 37 gr/lb is mixed with 1150 cfm of filtered recirculated air at 75°F, 65 gr/lb. The mixture produces 2500 cfm at 87°F and 56.4 gr/lb. This air, after passing through a cooling coil (Freon 12 at 40°F) is delivered to the photo and plate rooms at 60°F, 56.4 gr/lb, maintaining conditions within these areas at 75°F, 65 gr/lb (50% R.H.).

Automatic Regeneration

Intermittently, as the absorbent solution becomes diluted, a small quantity is automatically pumped to the regenerator section of the unit. Here it is sprayed over low pressure steam coils which raise the temperature of the solution, forcing it to release the excess moisture to a scavenger air stream.

At Palm Brothers, under maximum conditions, 115 lb/hr of steam at 5

psig are used for this purpose. From this installation 39.8 lb/hr or 120 gal/day of water is thus purged. After regeneration, the solution, now restored to its proper strength, is returned to the air washer section of the unit for further dehumidifying passes.

Summary

Air conditioning, that includes

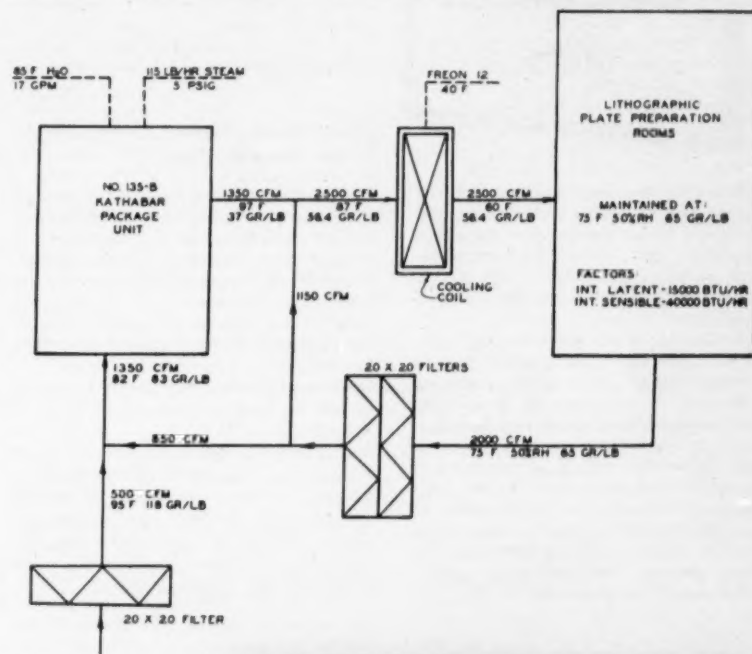


Figure 1, (above) Schematic flow diagram of the summer cycle of the Palm Brothers air conditioning system, at maximum design conditions. Photo and plate rooms are maintained at a constant 75°F, and 50% R.H.—best for lithographic platemaking.

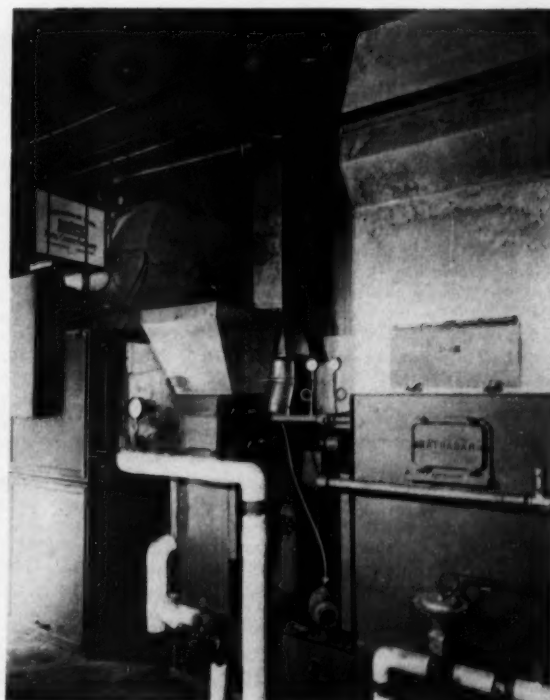


Figure 2, (right) The 1350 cfm Kathabar unit installed at Palm Brothers. On the right is the air washer section and in the center the regenerator section. The equipment on the left is the cooling coil, utilized in summer operation. Above the cooling coil can be seen the spray humidifier used in winter operation.

both temperature and humidity controls, is fast becoming one of the most important tools in many industries, permitting economical, profitable and uniform production and

creating favorable industrial environment for materials, equipment and workers. The installation at the Palm Brothers Decalcomania Company is a typical example.★★

Technical BRIEFS

These abstracts of important current articles, patents, and books are compiled as a service of the Lithographic Technical Foundation, Inc. They represent statements made by the authors and do not express the opinions of the abstractors or of the LTF.

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Photography, Tone and Color Correction

Wet Plate Vs. Infectiously Developed Silver Gelatine Emulsion. *Modern Lithographer and Offset Printer* 49, No. 10, October, 1953, pages 24-27 (4 pages). It is generally agreed that the ideal line or halftone material for use in preparing reproduction printing plates must render the maximum contrast and sharpness of image. Several factors must be taken into account when considering the type of photographic material required to give this result and the chief ones are the contrast of the sensitive material, the thickness and light scattering properties of the layer, the limitation of halation, and the influence of adjacency effects during processing.

The Diaphragm Slide Rule. Henry R. Long. *National Lithographer* 60, No. 8, August, 1953, pages 34-37 (4 pages). The construction and use of a slide rule for process lens diaphragm is discussed. It is to be used on older type cameras not having built-in lens diaphragm controls. A screen separation chart and slide rule are included.

Elements of Color Process Reproduction. Masking Direct Separations. Andy Perni. *Modern Lithography* 21,

Abstracts of Current Literature in the Graphic Arts

If the title of the abstract is *not* marked with an asterisk, LTF can supply photostats of the original article. The charge is sixty cents per page plus six cents postage. Orders from companies or individuals who are not members of LTF cannot be filled until payment is received. Orders with payment enclosed receive immediate attention.

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No. 10, October, 1953, pages 64-5 (2 pages). The article deals with masking direct separations and defines masking and color correction masking. A detailed step-wise set of operations for producing these masks is given.

Planographic Printing Processes

Platemaking for Process Work. Paul J. Hartsuch. *Graphic Arts Monthly* 25, No. 11, November, 1953, pages 66, 68, 71-2 (4 pages). Discussion of some of the variables encountered and the requirements for obtaining quality color reproduction, one of the most important requirements being close co-operation between photographer, platemaker and pressman. Mention is made of two LTF publications on platemaking and the use of the Sensitivity Guide.

Plates and Other Considerations in Dry Offset. *Modern Lithography* 21, No. 10, October, 1953, pages 53-4 (2 pages). This article answers questions raised from two previous articles on dry offset. In essence, plates should be etched .008". A 5% dot (.002") can be held conveniently. A freeze of .001 to .006" will not damage the plate surface in any way. Makeready, especially in large sizes and high quality work is difficult.

***Method of Producing Etched Printing Plates.** U.S. Patent 2,650,878. Mahlon R. Boyer and Arthur W. Grumbine. *Official Gazette* 674, No. 1, September 1, 1953, page 208. 1. A process of making an etched printing plate from a dry-stripping film having a gelatino silver halide emulsion layer carried by a thin hydrophobic cellulose derivative support which is adhesively joined to a temporary support by a dry-stripping layer, comprising exposing the emulsion layer separately through a screen and to a photographic picture, developing the exposed film in a hardening developer, fixing said developed film, bleaching the resulting film with an aqueous solution containing a water-soluble alkali metal salt of an acid which forms an insoluble silver salt image readily soluble in thiosulfate solutions, drying the bleached film, pressing the bleached gelatin silver salt layer into contact with the wet surface of a metal printing member, stripping the temporary support from the remaining support, dissolving the latter support, washing the unhardened gelatin from the gelatin layer whereby a relief image is formed and treating the relief image with an acid etching solution whereby an image is etched into the surface of said printing member.

Paper and Ink

Reverse Thixotropy, a Result of Pigment-Vehicle Interaction in Benzidine Yellow Dispersions. Edmund N. Harvey, Jr., Romuald Bulas and Jerome Fine. *Papers Presented at the Chicago Meeting of the Division of Paint, Plastics, and Printing Ink Chemistry*, September, 1953, pages 308-315 (8 pages); 1 figure, page 316. Summary and conclusions: 1. A rheological phenomenon termed "reverse thixotropy" has been observed in certain textile printing inks; 2. Its basic attribute as defined by flow curves obtained with a rotational viscometer is an increase in yield value on continued shearing in the viscometer; 3. The effect is most marked in flushed dispersions of benzidine yellow with added resinous ingredients; 4. Quantitative differences in the effect as influenced by formulation variables are described and discussed; 5. Apparently rather closely related to thixotropy, and resembling rheoplexy in certain respects, the phenomenon of reverse thixotropy probably stems from changes in the state of flocculation of pigment particles. Conjectural explanations for the phenomenon are advanced.

Catalysis by Complexes. I. The Drying of Linseed Oil. A. C. Zettlemoyer and Raymond R. Myers. *Ibid.*, pages 12-23 (12 pages). Economical replacement of conventional drying catalysts for oleo-resinous vehicles by metal complexes has been demonstrated. A means has been shown whereby cobalt can be replaced by manganese and iron in conjunction with a suitable amine additive. In some cases manganese catalysis was improved to the point at which it was superior to cobalt catalysis; in general, the greatest improvement occurred with diamines or other difunctional amines possessing resonant

structures and by certain amines of large steric requirements. Iron was susceptible to improvement by the same type of amines and to a greater extent in proportion to its original activity than was manganese.

The Mechanism of Drier Action. E. R. Mueller. *Ibid.*, pages 161-181 (21 pages); 7 figures, pages 182-6 (5 pages). The author discusses the processes involved during drying, a proposed mechanism for drier action, and experiments that should be carried out to elucidate the chemical changes taking place.

The Electrical Approach to Particle Flocculation in Concentrated Non-aqueous Dispersions. Andries Voet. *Ibid.*, pages 297-305 (9 pages); 3 figures, pages 306-7 (2 pages). The influence of particle size and shape, difference in dielectric constant between pigment and vehicle, pigment conductivity, particle orientation, measurement frequency, etc., on measuring particle flocculation in non-aqueous dispersions electrically and the limitations of these methods are discussed.

Residual Viscosity of Paint Systems at Infinite Shear Velocity. W. K. Asbeck and M. Van Loo. *Ibid.*, pages 279-291 (13 pages); 9 figures, pages 292-6 (5 pages). Briefly discussed are the Band Viscometer, Self-Centering Rotational Viscometer, structure at low shear velocities and infinite shear velocity. The design for an apparatus to measure directly the true viscosity of a system at a given shear velocity is given. The viscosity at infinite shear velocity (η_{∞}) for solid-liquid systems in which little structure is present in the liquid can be found by extrapolating $1/\sqrt{D}$ to 0 for $\eta^* = \eta_{\infty} e^{\eta^*/\sqrt{D}}$ where:

η^* = apparent measured viscosity

D = shear velocity

η_{∞} is independent of structure and therefore is the system viscosity in the Vand equation.

***Providing the Right Paper for the Process.** John Arnold. *Paper Market*, September, 1953, pages 68-9, 72. The benefits of exchange of knowledge between papermakers and users (printers or converters) are emphasized. The importance of fitness of paper for special uses with regard to selection of specialized papers, color, surface (finish) and its uniformity, and choice of type faces is discussed. *Bulletin of the Institute of Paper Chemistry* 24, No. 3, November, 1953, page 222.

Paper Properties as Related to Printability. II. William H. Bureau. *Printing Equipment Engineer* 84, No. 1, October, 1953, pages 39 and 67 (2 pages). Compressibility, resiliency, how they are attained or reduced in paper making, and their influence on printability are discussed.

Testing Methods for Printability of Paper. Progress Report No. Ten. Institute of Paper Chemistry. *American Newspaper Publishers Association Technical Report* No. 17, January 7, 1954, 16

pages. This report deals primarily with a laboratory study of ink transfer to three newsprints of known relative printing quality. On the basis of behavior on the presses of a large metropolitan daily paper, one newsprint was classed as good, one as average, and one as poor in printing quality. The previously described techniques employing the inclined plane and roll apparatus were used to transfer ink to the papers from uniform ink films and by spreading drops of ink on the papers. The ink transfer data were used to calculate critical film thicknesses and ink absorptions. Data on apparent density, Gurley porosity, Thwing formation, gloss, Bekk smoothness, and Chapman smoothness are also presented. The ranking of the newsprints in order of decreasing printing quality is the same as the ranking in order of decreasing density, formation, smoothness and gloss and increasing critical film thickness and ink absorption. The better formed, denser, smoother, and less absorbent sheet is the better printing sheet. Similar tests of specimens of these papers which had suffered excursions from 50 to 75 or 90 and back to 50% relative humidity showed that the newsprints experienced irreversible decreases in density, smoothness, and gloss and increases in critical film thickness and absorbency—changes which suggest poorer printing quality.

Lithography—General
Colour Problems in Lithographic Printing. J. H. Brittain and A. D. Lott. *Journal of the Oil and Colour Chemists' Association* 36, No. 401, November, 1953, pages 601-615 (15 pages); discussion, pages 615-618 (4 pages). The color produced by a lithographic printing ink depends principally on its thickness and the reflectance of the background, but also on several other factors. The present methods in general use of evaluating the optical properties of these inks are considered to be inadequate. The diffuse reflectance curves of two inks laid down over several neutral backgrounds at a range of film thicknesses have been measured and are shown to follow certain patterns. From such curves the coefficients of absorption and scattering have been calculated for both inks by the application of the Kubelka-Munk equation. Reflectances predicted from these data compare well with measured values and indicate that this relationship may be of practical use in the study of lithographic printing inks.

The Application of Epoxy Resin Esters to Metal Lithography. E. R. Lawson. *Modern Lithography* 21, No. 1, January, 1953, pages 57-8 (2 pages). An academic discussion of the Epoxy Resin Esters with relation to their use as varnishes in the metal finishing industry in place of tinplate. The superior physical properties of the modified resins (esters) are pointed out.

Graphic Arts—General
Helpful Color Measurements. Part 1. Frank Preucil. *Graphic Arts Monthly* 25, No. 10, October, 1953, pages 100,

102, 104, 106 and 108 (5 pages). A simple color ink-testing design, and a study of color process ink properties is made. Reflection densitometer readings with red, green, and blue filters are listed and strength, brightness, and mixture potential of the three inks are discussed.

Six Steps to 3D. *Modern Lithography* 21, No. 10, October, 1953, pages 59 and 171 (2 pages). Excerpts from an article by William B. Freeman in "Rush" magazine, New York. Six important steps in the production of stereo (anaglyph) printing are given as: (1) photography must start with a stereo camera, (2) the negatives must be cropped to proper size, (3) the plates should be registered with the center area being slightly to the right of the red plate and slightly to the left of the green plate, (4) adjustment of the inks should be made after viewing them with the filter spectacles, (5) drying printing is necessary to prevent blurring, and (6) the filters of the spectacles should transmit equal amounts of orange-red for one and green-blue for the other.

Silk Screen Mechanization. Victor Strauss. *Printing Equipment Engineer* 83, No. 12, September, 1953, pages 60-2 and 64 (4 pages); Paper Presented at TAGA, April, 1953. Silk screen has found acceptance as a printing process for two reasons: one aesthetic and the other technological. Screen prints have an almost three-dimensional color effect, the "hand painted" look, and screen printing can be performed on a vast variety of stocks, paper, metal, cork, glass, plastic, wood and cloth, for example, but also on finished objects such as bottles, toys, or mounting panels for electrical installations. These facts govern the problem of mechanization. Strong color is the result of extremely heavy ink deposits; this poses many problems not only in drying but in adhesion of sheet to printing form. Variety of stocks leads to variety of inks, piling variables on variables. Mechanization requires specialization. Several machines for special problems are exemplified: a drum printer, a printer for vials, a machine for dinnerware and one for bottles. Silk screen presses for paper and flat stocks have existed for a long time. The two most important older presses, the Tocker and the Selectasine are discussed in detail. Of the postwar presses the McCormick, the Reineke, the Four-Star-General and others are presented. Silk screen cannot be mechanized without overcoming rack drying. The governing factors concerning drying are analyzed and the latest efforts in mechanical drying are discussed.

Metallizing Press Cylinders. H. David McKinney. *Graphic Arts Monthly* 25, No. 10, October, 1953, pages 178, 170, 172, 174 and 196 (5 pages). Accidents in the pressroom may cause damage to press cylinders which in old days would cause long delays and undue worry. Today damaged cylinders are made "better than ever" by metallizing. Damaged cylinders are first turned down, grained, sprayed with a metal to higher than finish diameter

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for fine color lithography



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and then ground to finish diameter. Original cylinders are made from cast iron, susceptible to corrosion and wear. Now stainless steel is sprayed on, giving the cylinder lasting durability. Any metal can be sprayed on, thus giving cylinders and even steel rollers new surfaces which are better for the process.

***Process of Multicolor Electronographic Printing.** W. E. Huebner. *U.S. Patent* 2,654,315. *Official Gazette* 675, No. 1, October 6, 1953, page 119. The method of reproducing an image in color upon print receiving material and which comprises providing a plurality of printing couples arranged in sequential order and each including a printing member carrying at least a portion of the image to be reproduced, inking the image on the printing member of each of the couples with a colored ink which differs in color from that of the inks employed upon the other printing members, impressing an electrical precharge upon the ink after it is on the image carried by each member, creating an electro field of force at the printing zone for each couple, eliminating any preexisting electrical charge on the print receiving material, thereafter impressing an electrical precharge of predetermined polarity and value on said material, introducing said precharged material into the field of force of the first of said printing couples thereby effecting transfer of the precharged ink from the image to the material, eliminating the electrical charge remaining upon said material after it has passed through the field of force of said first couple; and repeating in succession for each couple the precharging of the material with an electrical charge of predetermined polarity and value, the introduction of the precharged material into the field of force of a printing couple with the image upon the printing member of each couple aligned with the image reproduced upon the material by operation of the preceding printing couple, and then the elimination of the electrical charge remaining on said material after it has passed through the field of force of a couple; the precharging of the ink upon the printing member of each couple and the precharging of the print receiving material prior to the introduction of the latter into the printing zone of that couple being effected by charges of opposite polarity; the precharge impressed upon the ink on the printing member of at least one of the printing couples being of opposite polarity to the precharge impressed upon the ink on the other of the printing members of other of the couples.

Full Color Offset Newspaper Production. Part Two. T. W. Brown. *Modern Lithography* 21, No. 10, October, 1953, pages 79, 82, 84-5 and 88 (5 pages). This is a detailed report on the use of offset lithography to produce R.O.P. color and newspaper supplements. Camera work, color correction, layout, platemaking (Al-ler plates), photocomposing and supervision are briefly described. ★ ★

TAGA Assembling Papers

Papers on technical problems in the graphic arts are now being assembled and reviewed by the Technical Association of the Graphic Arts for its sixth annual meeting on May 10 and 11. To be held in the Schroeder Hotel, Milwaukee, the two days of technical sessions will be devoted entirely to technological problems faced by the printing industry. Covering a wide range of interests in the graphic arts, TAGA will present a program covering both private and cooperative research on printing problems. TAGA now has members in Denmark, Sweden, Holland, England, Australia, and Canada.

Further details concerning the meeting can be obtained from Richard Shaffer, Pratt Institute, Brooklyn, New York, president of TAGA, or from George Hammer, Forbes Litho-

graph Mfg. Co., Boston, secretary-treasurer.

Phila. Assn. Plans Library

Arrangements have been made to establish a Graphic Arts Library at the headquarters of Printing Industries of Philadelphia, Inc., 1234 Locust Street. The plans were worked out by John C. Meyer & Son, the Junior Executives Club and the PIP board of directors.

Arthur J. Meyer, president of John C. Meyer & Son, has agreed to underwrite the cost of establishing this library by contributing \$2000 for this purpose. It will be a memorial to John C. Meyer.

A library committee will be in charge of the operation and maintenance, and will purchase new books for its shelves.

The library is expected to be opened by March 15, 1954.

Copper Plating Solution Improved by Foundation

(From material prepared by the Lithographic Technical Foundation for publication in its Research Progress No. 28. Information on LTF publications is available from the Foundation headquarters at 131 East 39th St., New York 16, N. Y.)

SOME time ago, LTF released a formula for a solution that would copper plate the steel rollers in a press inking system and prevent stripping. Additional work done since the publication of that article has shown that a modification of the original solution does an even better job. LTF's new formula is below.

This formula calls for twice as much acid and cuprous chloride as the original.

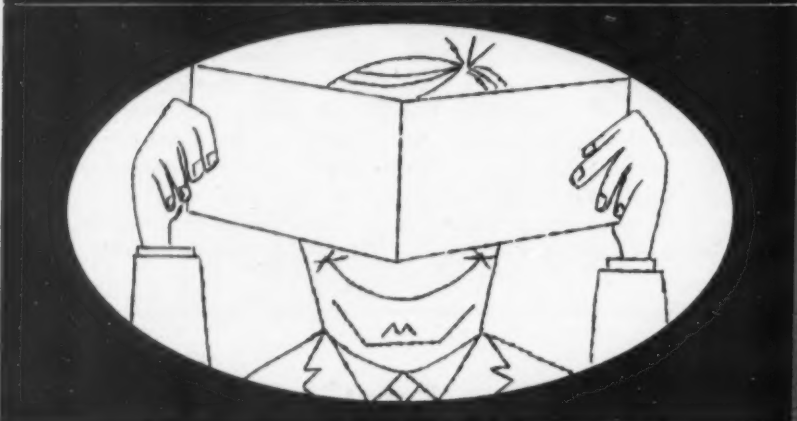
Have you tried this method of preventing stripping? It's easy. After a thorough press wash-up, you just pour on the coppering solution. In a few minutes the steel rollers are plated. The treatment takes only a few extra minutes about twice a week, yet it can save hours of down-time correcting stripped rollers. It's especially easy if you use the three solution wash-up method.★★

LTF Copper Plating Solution

	Metric Units	U.S. Units
Isopropyl Alcohol, 98%	450 cc.	15¼ liq. oz.
Ethylene Glycol	450 cc.	15¼ liq. oz.
Hydrochloric Acid (concentrated)	42 cc.	1½ liq. oz.
Cuprous Chloride (CuCl ₂)	30 grams	1 avoird.



Change
from this...



to
this...

PUT THE JOB ON **WESTON BOND**

25% RAG CONTENT

The difference between a sour customer and a happy one can easily depend on the paper you use. He judges the job on the look and feel of the paper and the only impression he can get of the time and skill you put into it is what the paper shows him.

WESTON BOND, an all-purpose 25% rag content paper, looks better, prints better and serves

better. What's more, it's easier to handle so that jobs go through smoothly and profitably. And it costs no more!

Weston Bond offers you a complete selection of sizes, weights and colors, plus Weston Opaque Bond, Weston Bond-Litho Finish and envelopes to match with instant sealing flap gum.

BYRON WESTON COMPANY

Makers of Papers for Business Records Since 1863
DALTON, MASSACHUSETTS



THROUGH THE *Glass*

THE best examples of offset lithography, as collected in the traveling exhibit of the LNA Awards Winners of 1953 made a stop last month in San Francisco. A meeting of the SF Advertising Club was built around the display. Carl R. Schmidt, president of Schmidt Lithograph Co., was chairman of the day.

ml

Russell F. Greiner, president of Greiner-Fifield Lithographing Co., Kansas City, was the subject of a feature story in the KC STAR during January. Each year he compiles a roll of Kansas Citizens who have passed away during the past 12 months. This "memory lane" is followed with interest every year. Mr. Greiner is a native of Xenia, Ohio, and came to KC in 1889 as a newspaperman. He worked in the newspaper field for some years.

ml

Former advertising man, T. Roger Blythe, who went to Tucson, Ariz. 10 years ago to start publishing booklets by offset, has seen his little enterprise grow into something of rather large proportions according to a recent feature in the Tucson Star. He has sketched principal buildings and other features of many of the cities in the Southwest, and published them as small illustrated booklets. He later branched out into covering larger cities, and has published more than 250,000 copies to date.

ml

The January 26 meeting of the Sales Executives Club of New York was devoted to the subject of point-of-purchase advertising, with heavy emphasis on lithography. George A. Phillips, manager of Cluett, Peabody & Co., spoke at the meeting which was arranged by George P. Hughes, VP of Kindred, MacLean & Co., New York lithographers.

ml

Herbert Paschel, graphic arts consultant, and contributor of many articles to ML, was

in the Netherlands during January. Working with a large, modern plant there, he postcards that they are regular readers of this magazine.

ml

Fred H. Pinkerton, VP, Reinhold-Gould, Inc., New York paper firm, was elected president of the Executives Assn. of Greater New York last month. He also is president of the Printers Supply Salesmen's Guild and active in numerous other graphic arts organizations in the Big Town.

ml

"The basic principle of lithography used to be 'grease repels water,' but the basic principle today is—'How much will it cost?' At present it is costing rather a lot."—From a comment in *Modern Lithographer and Offset Printer* (London).

ml

A couple of months ago we reported a \$10,000 robbery of a New York litho concern. This month we have another robbery to report. Postner Lithographing Co., Denver, reported to police last month that \$4.50 had been filched from the cash box. Better lock up your postage stamps.

ml

Frank P. Spaulding, VP of Stewart & Fryer, Chicago litho and printing concern, was heralded as speaker at a meeting in January of the Milwaukee Industrial Marketing Assn.

ml

Firms operating small offset duplicating equipment are members of the Little Printers Assn. of Indiana, in Indianapolis. Equipment 14 x 20" and smaller is the size range of equipment which makes a company eligible for membership.

ml

Gaylord Donnelley, president of R. R. Donnelley & Sons Co., Chicago, was a member of a committee of top Chicago business executives who planned and supervised the observance of "Junior Achievement Week" in Chicago, during the first week of February. Climax of the program was a "J. A. Trade Fair," in Chicago's

vast Coliseum, where over 130 local J. A. companies displayed and sold products they manufacture. Prominent in the show were the various J. A. companies sponsored by Donnelley's, with guidance in the production, promotional and financial affairs of these kid companies furnished by various Donnelley executives.

ml

One of Chicago's lithographic veterans, Charles Rahm and his wife, Mrs. Emily M. Rahm, were the subject of brief sketches, with pictures, in Chicago newspapers on the occasion of their 50th wedding anniversary. Married in Omaha, Neb., Oct. 28, 1903, the couple soon thereafter set up their home in Chicago, "where we've been ever since," Mr. Rahm told ML. Here Mr. Rahm's career covered the entire span of lithographic developments from the "stone age" to multi-metal plates, Kodachrome reproductions and high speed presses. In 1948 he reached the age of retirement with the Regensteiner Corp., but one year of idleness was all he could stand, so he went back to work for two years with Roberts & Porter. Two years ago he again "retired" and now tries to keep busy watching television, following the news and working around the home he and Mrs. Rahm have built at 6135 S. Maplewood Ave.

Mr. Rahm was one of the founding members of the Chicago Litho Club and recalls the early days when "only a handful of us" would gather to wrestle with the always abundant problems of offset lithography of 25 years ago. In 1933 he was elected president and held this office for one term. Today he still attends the club's monthly meetings. During the fall Mr. and Mrs. Rahm visited in Washington, D. C., with their son, who is an offset platemaker in the Government Printing Office.

ml

Nichola J. Vanderkloot, vice president for executive sales for R. R. Donnelley & Sons Co., Chicago, celebrated the 30th anniversary of his connection with the big Chicago printing firm last month. Roy T. Anderson, vice president and sales manager, also reached the 25th year service mark on New Year's Day. ★★



Custom Plate Service

KWIK, a custom offset plate service, is now in a position to service one or two new medium size accounts in our expanded facilities. For superior plates, at sensible prices, contact us.

Personalized service—dependable quality—craftsmen in lithography

News

ABOUT THE TRADE

GPO Slashes Prices Five Percent

FOR the first time in 20 years, the Government Printing Office has reduced its charges for printing to the other government agencies. Raymond Blattenberger, Public Printer, on January 15 advised all departments and agencies that prices at the GPO would be reduced five percent effective February 1. This reduction resulted from a program instituted by Mr. Blattenberger to reduce expenses wherever possible, and to maintain production at a high level. The letter from the Public Printer to the heads of government departments stated:

In the past eight months that I have been Public Printer, I have been trying to learn as much as possible about the Government Printing Office, and to carry out the pledges of the administration to reduce governmental costs wherever possible. I came to the Government Printing Office determined to operate it as much like a private printing plant as possible. Shortly after I took office, the Congress approved a business-type budget for the Government Printing Office, which is set up in almost the same manner as the budget for any large private printing plant. I believe that this change has resulted in real savings, and the mere shift in emphasis from the regular type Government appropriation to a business type structure is in itself causing everyone concerned at the Government Printing Office to adjust his thinking from the regular Government terms to the thinking of people engaged in a business activity.

I also instituted a series of internal budgets for the administrative and service divisions with a resulting reduction in overhead expenditures of over \$882,000 a year. While Congress was out of session, one of our night shifts was almost completely discontinued, and by

operating on a two-shift basis instead of a three-shift basis, there was a saving of \$23,000 per month. We are continuing to operate with only two shifts in as many areas as possible, even though Congress has reconvened, and are still realizing a saving of approximately \$11,000 per month. A short time ago I initiated action to return to the Treasury five million dollars of our cash working capital, which I felt could be utilized to better advantage elsewhere in the Government. A number of other reductions in expenses have taken place, all aimed at my goal of maintaining a high production with overhead expenditures reduced to a minimum.

This program is now beginning to produce dividends in the form of a reduction in printing costs to the Government agencies which are customers of the Government Printing Office. I am notifying all Government agencies that effective February 1, charges for work performed in the Government Printing Office will be reduced five percent. (There will be a very few exceptions in highly specialized fields.) This, I am informed, is the first general reduction in the cost of Government printing to take place in twenty years. My hope and aim is that this is not the end but only the beginning.

I am looking forward to the day when every Government agency will have its printing done at the Government Printing Office, not because it is required to do so by law, but because the Government Printing Office renders the type of service the agency wants when the agency wants it.

Mr. Blattenberger also advised Members of the Congressional Joint Committee on Printing, which serves as a board of directors for the Government Printing Office, of his action in reducing the cost of Government printing, and expressed his appreciation for the "fine support and en-

couragement" which he has received from the members of the Joint Committee.

POPAI Exhibit Plans Advance

The nation's designers and manufacturers of retail store displays will hold an exhibit in the world's largest show of its kind at the 8th Annual Symposium and Exhibit, sponsored by the Point-of-Purchase Advertising Institute at the Hotel Statler, New York. Executive director of the Institute, Norton B. Jackson, announced the dates as March 30, 31 and April 1.

Ed K. Whitmore, of the Oberly and Newell Lithograph Corp., is general chairman. D. S. Hutchinson, of Lutz and Sheinkman, chairman of the exhibit committee, expects over 100 displays at this year's event. An estimated attendance of 10,000 sales, advertising and administrative executives from all over the country, is expected at the exhibition.

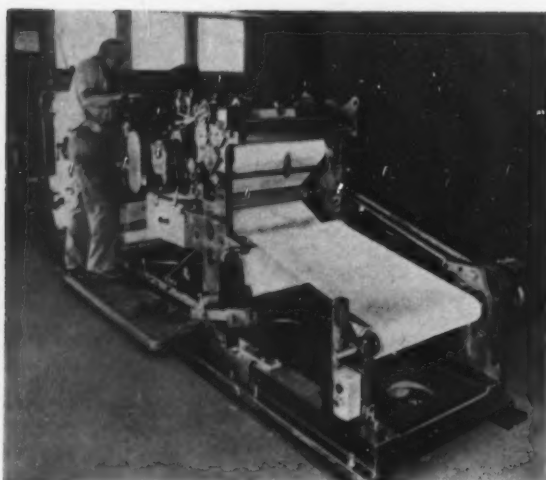
As an added feature, it is planned to hold two merchandising clinics for advertising agencies and others interested. The panels of these clinics will include authorities representing the agency field and leaders of companies using point-of-purchase material.

Thirteen hundred advertising and sales executives and advertising agency heads will attend the Annual Symposium-Luncheon on Thursday, April 1. An outstanding business leader will address the group on point-of-purchase advertising. POPAI said.

ATF Erects New Press

American Type Founders recently added a new press in the plant of National Manifold Co., Dayton, O., accommodating a web width of 26 inches on printing cylinders with a circumference of 17 inches.

The press, (right), is equipped with a paper roll stand operated with a P.I.V. Speed Drive with automatic tension control to take a 40-inch diameter roll with a three-inch core. The press has two offset lithographic printing units and a set of turning bars, which makes it possible to print two colors on one side or one color on each side of the web. It also has a numbering unit, a teletype punching unit, a file hole punching unit, two cross perforator units, a jump perforator unit, a vertical perforator and slitter



unit and a rewind unit. The press has a speed of 15,000 cylinder revolutions per hour when rewinding.

Also installed at National Manifold by ATF is a rotary collating machine which accommodates six rolls of paper up to 18 inches in diameter and interleaves five rolls of carbon tissue up to 12 inches in diameter. It has five standard glue pots. Cut-offs may be made at 8½, 11½ and 17 inches.

Lithocolor Takes More Space

Increased business has made it necessary for Lithocolor, Inc., of Cincinnati to increase its floor space to 4,300 square feet. The firm was organized in August, 1953, and officials are Raymond Haymes, president; Joseph Pieper, vice president, and Fred W. Mitchell, secretary-treasurer.

Anderson Photo Color Expands

Anderson Photo Color Co. of Cincinnati recently has completed a major expansion by doubling its floor space at 229 East Sixth St., and installing new equipment, to make it one of the largest shops in the city specializing in black and white and color work, excepting four-color process.

The new equipment includes a 22 x 34" Anderson repeat printer and Anderson setup tables, a 40 x 50" Craftsman lineup table, Robertson printing frame, a 27 x 36" stripping table, a Grafarc light, and a Paasche spot remover airbrush.

The increased space has made it possible to streamline the plant layout, and provide an attractive lobby, where the furnishings include a

22 x 34" light table, where customers can inspect negatives in privacy. Robert V. Anderson is president of the company, which was started in 1948.

Hennegan Honors 25 Yr. Employees

The Hennegan Co. of Cincinnati inaugurated a 25-Year Club at its annual Christmas party in late December, when President John E. Hennegan presented watches to 24 employees with a quarter century or more of service with the firm.

Gibson Shares Stock

Stockholders of Gibson Art Co. of Cincinnati, at a special meeting in late December, voted to make 25,000 shares of company stock available to officers and key employees.

Cincinnati Assn. Re-elects

All officers of the Graphic Arts Association of Cincinnati, Inc., were re-elected at a meeting of directors on Jan. 5. They are: president, William A. Kleesattel, Feicke Printing Co.; vice president, Wilbert Rosenthal, M. Rosenthal Co., and treasurer, R. W. Bonnett, Bonnett Co. E. P. Rockwell continues as managing

director, and C. H. Colman as his assistant. At a December membership luncheon meeting, Albert F. Broering, president, McDonald Printing Co., Inc., was elected a director.

May Dies from Burns

Richard E. May, Cleveland lithographer, who operated the Rex Litho Plate Co. for the past nine years, died last Christmas from burns suffered in a flash fire in his home. He was 47.

Mr. May started in the trade with A. L. Garber Co., in Ashland, O., later serving with Harris-Seybold and Copifyer Lithograph Corp.

He organized the R. E. May Co., a lithographic trade house in 1941, later selling it to Paul Meunier and rejoining Copifyer. He set up Rex in 1945, gradually expanding it since that time.

His widow, father, a son and a daughter survive.

Ohio Firms Add Equipment

A number of lithographic and paper firms in the Greater Cincinnati area have recently installed new equipment. These include Westernman Print Co., 22 x 34" one-color Harris press; Lithocolor, Inc., 21 x 28" Harris press; Lacher Sons, 34" Seybold paper cutter; Offset Service, 34" Seybold paper cutter; Whitaker Paper Co., 64" Seybold paper cutter, and C. W. Zumbiel Co., 40" Seybold paper cutter.

Show Litho Award Winners

Sponsored by the Miami Valley Lithographers Association, the third annual display of the Lithographic Awards Exhibit will be staged March 2-4 on the mezzanine of Hotel Sheraton-Gibson in Cincinnati. Cooperating groups are the Cincinnati Litho Club, Advertisers' Club of Cincinnati, Art Directors' Club, Cincinnati Industrial Advertisers, Junior Ad Club and other groups.

Moore Moves Up

Jack F. Moore has been moved up to president by National Lithograph Co. Detroit. Mr. Moore, who had been vice president of the company, has served with National since 1925.

Parton, Rurik, Named VP's

Elevated to the position of vice president last month two Brown and Bigelow sales executives. Charles H. Parton, (left) was promoted to vice president and sales manager, Eastern Division, with headquarters in New York City, while Thomas J. Rurik was named vice president and sales promotion manager.

Mr. Rurik joined the advertising specialty firm in 1938 after wide experience in the sales field. Mr. Parton joined the management division of the company last October, after having served as vice president of



the Osborne Co., advertising specialties, in Clifton, N. J.

In another move, directors of Brown & Bigelow, St. Paul, Minn., announced approval of plans to purchase Bigelow-McGill Co. and the Graphic Arts Engraving Co. Bigelow-McGill is owner and operator of McGill Paper Products Inc.

Plan '54 Self-Adv. Awards

The success of the first two P.I.A. Printer's and Lithographer's Self Advertising Exhibition and Awards contests has prompted a third for 1954, the sponsors announced last month. Brochures of rules are now available from Printing Industry of America, Inc. national and local offices or from Miller Printing Machinery Co., 1117 Reedsdale St., Pittsburgh 33, Pa. Rules are substantially the same as for the first two contests, and material produced between September 11, 1953, and October 22, 1954, will be eligible. The 1954 contest will close on October 22. Awards again will be \$1000 and a "Benny" statuette for first prize for campaigns in each of the three company size classifications, and a statuette for second place in the campaign competitions and first place in the individual specimens competitions.

The exhibit will be held in the Hotel Statler, Detroit, during the PIA annual convention, November 15-19. Because of the limited space available, only the 50 best campaigns and 50 best individual specimens will be displayed, and special "Best Fifty" certificates will be issued to the firms represented in the exhibit which did not win a prize or honorable mention.

Although six of the nine prize winners in 1953 were also in the

1952 competition, only two of them won prizes both years, and only one, The Veritone Company, Chicago, took the same prize both times—first prize for campaigns from companies with from 20 to 100 employees. Fine Arts Litho Company, Dallas, moved up from second to first place in the competition for campaigns from companies having 19 or fewer employees.

The fact that there is a different group of judges each year, bringing a variety of viewpoints to bear on the selections should make the contest retain its interest from year to year. The six basic factors of plan and continuity, idea, copy, design and physical appearance, quality of reproduction, and effectiveness are the basis for judging each year.

For the 1954 contest the following national advertising groups will furnish judges, in addition to the representative of the board of directors of PIA: Advertising Federation of America, Advertising Council, Inc., Direct Mail Advertising Association, Inc., and Industrial Advertisers Association.

In 1953 the first prize for plants with over 100 employees went to the campaign of Herbick & Held Printing Co., Pittsburgh, Pa., which strongly emphasized a 50th anniversary party for several thousand guests, and the promotion built around the party. The same prize in 1952 went to Edward Stern & Company, Inc., Philadelphia, Pa., for a campaign which was composed primarily of printed pieces, some quite elaborate, going out on a very firm schedule throughout the year.



St. Paul Firm Adds Big Press

Louis F. Dow Co., St. Paul, Minn., has announced the installation of a Miehle four-

color 76" offset press, shown above. It is being run by Robert Jarosh and James O'Neill, the company said. The man in the photograph was not identified.

To the owner of the 2,000th Lawson 39" Cutter 1,000

Although you are as yet unknown, the rate of acceptance of these dependable cutters is rapidly approaching the 2,000th milestone... ahead of schedule. Because the many users have found the Lawson 39" Cutter to be highly productive and giving the most accurate cutting, Mr. Bloth is on safe ground when he says, "May your 2,000th cutter serve its recipient as faithfully and dependably as have ours."

750

500



MANUFACTURING BANK AND COMMERCIAL STATIONERS

MILTON C. JOHNSON COMPANY

ESTABLISHED 1914
70-80 WALKER STREET
New York 13, N.Y.
INCORPORATED 1938 N.Y.

January 12, 1954

Mr. David W. Schulkind, Pres.
E. P. Lawson Company, Inc.
24 West 33rd Street
New York City

Dear Mr. Schulkind:

On the occasion of the installation of our third Lawson 39" cutter, back in April, 1952, you had proudly made the point that it represented the one thousandth cutter of its type to be delivered.

I recall congratulating you on that circumstance, but now I can add an even more important reason for congratulations... one based on a proven record of service.

You will be delighted to know that all three of our Lawson Cutters have lived up to every expectation for productive capacity and dependability.

May your 2000th cutter serve its recipient as faithfully and dependably as have ours.

Yours very truly,
Charles E. Bloth
President & Treasurer

Write today for illustrated folder on Lawson 39", 46" and 52" Cutters, also on Rapid 3-Knife Trimmer and Multiple Head Drilling Machines.

E.P. Lawson Co.

MAIN OFFICE: 426 WEST 33rd ST., NEW YORK

BOSTON
170 Summer St.

PHILADELPHIA
Bourse Building

CHICAGO
628 So. Dearborn St.

EXCLUSIVE DISTRIBUTORS SALES AND SERVICE

HARRY W. BRINTNALL CO.
Los Angeles, San Francisco

A. E. HEINSOHN PRINTING MACHINERY
Denver, Colorado

SEARS LIMITED
Toronto, Montreal, Winnipeg, Vancouver

SOUTHEASTERN PRINTERS SUPPLY CO.
Atlanta, Georgia

WESTERN NEWSPAPER UNION
Tulsa, Little Rock, Oklahoma City, Shreveport

E. C. PALMER & CO.
Dallas, Houston, New Orleans



Hall Co. Appoints Robinson

Edward A. Robinson (above) has been appointed sales manager of The J. C. Hall Company, bank stationers, lithographers, printers, and binders, of Pawtucket, R. I. Mr. Robinson is a graduate of Allegheny College, Meadville, Pa. He joined Talon, Inc., in their industrial relations division, and in 1944 was appointed employment manager. Mr. Robinson came to New England in 1946 with Talon, as sales representative. Since 1950 he has been associated with Swank, Inc., originally as New York office and warehouse manager, then as head of the public contracts department, and since 1952 as assistant to the general sales manager in charge of service and customer relations. Mr. Robinson presently resides in Attleboro, Mass.

Strathmore Elects

Laurence W. Shattuck, formerly general superintendent, was elected vice president in charge of production of the Strathmore Paper Co. at the annual meeting held in the company's offices, West Springfield, Mass., recently. The stockholders re-elected all directors. F. Nelson Bridgman, president, reported that the company had a good year, with both sales and profits somewhat ahead of the previous year's figures.

A six-day schedule of operations was maintained throughout the year but total demand was not met, he reported. The company purchased Keith Paper Co. in November, and is operating it as a separate company.

Three Firms Praised

Three members of the graphic arts field have been certified by the American Institute of Management, New York City, as "excellently managed." The companies, American Bank Note Co. and Intertype Corp., both of New York, and Harris-Seybold Co., Cleveland, were among 348 companies so honored in the United

States and Canada. AIM studied 3,000 leading companies in making the designations. American Bank Note received the award for the fourth consecutive time, the others for the third.

Keller Marks 40th Year

William J. Keller Inc., printing and lithographing concern of Buffalo, N. Y., currently is celebrating its 40th anniversary. The occasion was marked at a company dinner Dec. 28. In recognition of more than 25 years as company president, employees presented Penn R. Watson Sr. a painting of himself.

The company, founded by William J. Keller in a small shop at 829 Main St., purchased its present plant late in 1950. The company employs about 100 workers. The business was purchased by Mr. Watson in 1928 on the death of Mr. Keller, his brother-in-law.

President Watson told employees at the anniversary dinner that none of the regular workers has lost any time through layoffs for more than 21 years and that the company's business has increased much more rapidly than the industry average.

Vice President William J. Watson presented a gold wrist watch to Jacob G. Donhauser for 36 years' company service. A pin for 25 years' service was presented to Norman C. Minnich. Pins were also presented to other employees for 15, 10 and 5 years' service.

Display of Advertising Planned

The public will get a chance to view the 50 best advertisements of 1953 early next month when the American Institute of Graphic Arts puts its selection on display March 1. The advertisements, selected from a field of several thousand entries, will be shown in the main gallery of the AIGA, 13 E. 67th St., New York City, through March 12, in conjunction with the Institute's 12th National Exhibition of "Design and Printing for Commerce 1954."

The jury was composed of Will Burton, designer; Charles T. Coiner, N. W. Ayer & Son, Inc. and Jack Tinker, McCann-Erickson, Inc.



Bogart Joins Buck Printing

John A. Bogart, Jr., (above) has been appointed sales and promotion manager of Buck Printing Co., Boston, lithographers, screen process printers, and wood engravers, in an announcement made by Douglas F. Reilly, treasurer. The appointment, according to Mr. Reilly, was made in alignment with an overall expansion program at Buck Printing Company. Mr. Bogart came from the post of advertising and sales manager of Phillips Publishers, Inc., Newton, Mass., publishers and suppliers of lithographed books and greeting card items to the direct selling field.

Meeker Appointed by Macbeth

Robert E. Meeker has joined Macbeth Corp. and subsidiaries, Newburgh, N. Y., as assistant to the general sales manager. Mr. Meeker previously was sales manager for Master Rule Co. Macbeth manufactures lighting equipment for industrial color quality control and instruments for process control.

C. D. Backus Dies

Clinton D. Backus, 76, who retired last Oct. 1 as manager of planning and layout for the Todd Company, Inc., Rochester, N. Y., died in his home Dec. 13. He began his printing career at the age of 12. He was made manager of planning and layout 12 years ago.

Plan Craftsmen's Conference

Roland J. Lachapelle, E. P. Lawson Co., Boston, First District Representative, has announced that the First District Spring Conference of Craftsmen will be held at the Hotel Statler, Boston, April 9 and 10.

Baker, Jones Adds Presses

Baker, Jones, Hausauer, Inc., Buffalo, recently installed two Harris 21 x 28" offset presses.

Prominent Users of Strathmore Letterhead Papers: No. 109 of a Series



"La Fortaleza"...residence of the Hon. Luis Muñoz-Marín, first elected governor of Puerto Rico, was begun in 1533. Since 1639 it has been the official home of the governors of the island.

ESTADO LIBRE ASOCIADO DE PUERTO RICO
LA FORTALEZA, SAN JUAN
OFICINA DEL GOBIERNO

COMMONWEALTH OF PUERTO RICO
LA FORTALEZA, SAN JUAN
OFFICE OF THE GOVERNOR

*For an ancient culture...
new economic freedom!*

To the people of Puerto Rico, whose ancestors came from the land of Cervantes and Lope De Vega, the twentieth century has brought a new determination...a will to live and work together for the well-being of all.

Puerto Rico, today, guided by a government to which it has been giving its votes since 1940, is transformed into an island that looks forward to its future with great hope and confidence.

By the introduction of modern methods and techniques of production...by encouraging continental investors through a liberal tax policy and a trained labor force...by broadening the commercial land uses of its agricultural pattern...the government is gradually realizing its ambitions to bring a higher standard of living to all Puerto Ricans.

Strathmore is proud to have one of its letterhead papers chosen for the executive correspondence of the government of the Commonwealth of Puerto Rico.

Strathmore Letterhead Papers: Strathmore Parchment, Strathmore Script, Thistlemark Bond, Alexandra Brilliant, Bay Path Bond, Strathmore Writing, Strathmore Bond. Envelopes to match converted by the Old Colony Envelope Company, Westfield, Mass.

STRATHMORE
MAKERS OF FINE PAPERS

Strathmore Paper Company, West Springfield, Massachusetts

Strathmore ADVERTISEMENTS

in national magazines tell your customers about the letterheads of famous American companies on Strathmore papers. This makes it easier for you to sell these papers, which you know will produce quality results.

★ ★ ★

This series appears in:



TIME



NEWSWEEK



BUSINESS WEEK



PRINTERS' INK



SALES MANAGEMENT



PURCHASING



**ADVERTISING
REQUIREMENTS**

Sauls Now in New Plant

Sauls Lithograph Co., Washington, D. C., now is located in the company's new plant at 2424 Evans Ave., N.E. The new, modern building, with basement, provides 20,000 square feet of floor space, double that formerly occupied by the firm in its old location. The new plant is entirely air conditioned, and is laid out for efficient operations, according to A. L. Tucker, general manager. Equipment includes complete camera and platemaking facilities, and five presses ranging from 26" up to 54", single colors. Black and white, and process color work is produced, both for industry and for the federal government. Joe Arnold is assistant general manager.



John McLean Dies

John A. McLean, special consultant to the Printing Industry of America, Inc., and former assistant production manager at the U. S. Government Printing Office, died Jan. 18, at his home, 4819 Russell Avenue, Avondale, Md.

Born in Brooklyn, he first worked at the Knickerbocker Press in New Rochelle, New York, before coming to the U. S. Government Printing Office in 1910 as an electrotypist. He served as finisher-in-charge, assistant foreman, superintendent of platemaking, and was assistant production manager at the time of his retirement in 1949. After fifty years in the printing trades he was named editor-in-chief of the Dictionary of the Graphic Arts, on which he was working at the time of his death.

Mr. McLean was past president of the electrotypers union, past president of the Washington Club of Printing House Craftsmen, district representative of the International Association of Printing House Craftsmen, and a speaker before many graphic arts groups on platemaking processes for the printing trades.

Box Industry Progresses

Better reproductions on retail packages were made by the folding box industry last year, according to Leonard Dalsemer, executive vice president of The Lord Baltimore Press, a folding carton manufacturer and lithographing concern.

Mr. Dalsemer said the progress was made in preparation for a de-

mand this year for higher levels of quality in color, illustration and design.

He said the trend toward making the retail package a sales tool by putting appetizing pictures of the product on the carton and by the use of brilliant colors will continue during 1954. Volume for the industry during the remainder of the year probably will be at about last year's level, he added.

Mr. Dalsemer said the folding carton industry now is better prepared technically to turn out outstanding products than ever before. The net result this year, he stated, will be that folding cartons will do better selling jobs for packaged products whose manufacturers want them to move fast from the shelves of retail outlets into the hands of consumers.

He outlined what he termed "a tremendous change" in the last few years in retail cartons. He cited improved engravings, specially designed for printing on box board, improved press work and high-fidelity reproduction, which, he said, have turned many retail cartons into attention-arresting posters.

Federal Adds Machine

Federal Lithograph Co., Washington, D. C., recently put in a Seybold Hydrodrill multiple spindle drilling machine.

GPO Adds Stitcher

The Government Printing Office, Washington, recently installed a Rosback Auto-stitcher.

Plans Phila. Suburban Plant

William & Marcus Co., Philadelphia printers, will erect a \$400,000 plant in Primos, Delaware County, on an 8½-acre tract purchased for \$62,500. The land has a frontage of 250 feet along Bunting Lane and extends back 650 feet to the Pennsylvania Railroad, where it has a frontage of 644 feet. The site is directly across the tracks from the new Ketterlinus Lithographing Co. plant.

John S. Williams, president of Williams & Marcus, said the plant will contain about 400,000 square feet. It will be used for offices and commercial printing. The firm is now located at 424 South Tenth Street, Philadelphia.

G. A. Firms in Exhibit

C. Walker Jones Co., manufacturers of Jomac Products for lithographers, and Roberts & Porter, Inc., lithographic suppliers, were represented in the 1954 Printing Week Graphic Arts Exhibit in Philadelphia January 18 to 21. Offset advertising literature for both firms was chosen for exhibition as representing "outstanding lithography" in Philadelphia. The C. Walker Jones piece is a folder on Seamol and Flanol, while the Roberts & Porter piece announces the opening of a Philadelphia branch office. Both were lithographed by National Advertising Manufacturing Company, and prepared by Richard Roley, advertising agency, Philadelphia.

Production Controls Outlined

The increasing importance of efficient production control and scheduling in order to meet today's increasing demands for shorter delivery guarantees was stressed at the January 13 meeting of the Young Lithographers Assn. at the New York Advertising Club. Some 60 members and guests attended a panel session which dealt with the problems involved in control operations as practiced in several large New York plants.

The general purposes of production control were outlined by Jack Tisne, Schlegel Lithographing Corp., who was moderator of the discussion. He pointed out the importance of keeping expensive equipment in productive operation as one of the best means of keeping a company in the black, profitwise. (Mr. Tisne's remarks appear on page 43.)

Sidney Levine, Consolidated Lithographing Corp., described how his company often gangs up color work, such as labels, with as many as 50 different jobs on a single plate. This has required standardization of paper, inks, bronzes, and other factors, and also demands complex scheduling. He said it requires conscientious planning and follow-through in order to eliminate lost time. A luncheon meeting of foremen and key men is held every day where discussions are held on current production problems.

Monroe Selling of Lutz & Sheinkman stressed the importance of obtaining accurate specifications and dummies for every job. Blue prints are sent out for okays on every job, he said, and a great deal of the scheduling is improved by following through on these prints and obtaining okays without delay.

Tom Bent, Metropolitan Litho Service, stated that time is the biggest factor in production planning and control. Even five years ago about four weeks time was the common rule for process color proofs, whereas now two weeks is the rule. The trend in platemaking now is toward highlight masking which reduces dot etching time, although it increases camera time, he reported.

Scheduling must be based on facts, not on wishful thinking, was the general conclusion.

Art Tarling, Willmann Paper Co., addressed the group on the urgent need for blood donors in the Graphic Arts Blood Bank, from which various organization members and their immediate families, can draw in emergencies. Withdrawals from the bank have used up the reserve, he said. James D. McNamara, Sigmund Ullman Co., is YLA chairman of the blood program.

Kurt Heinrich, YLA president, announced that the February 10 meeting was to honor past presidents of the organization. As many as possible of these were to be on hand, he said.

The annual business meeting and election is planned for March 15 at the Advertising Club, and in April, William Clawson, Miller Printing Machinery Co., Pittsburgh, will speak on self-advertising for lithographers and printers. He is expected to demonstrate winning advertising ma-

terial of graphic arts companies. In May, a tour of a large graphic arts plant in the New York area is being planned.

Ink Firm Appoints Feldkamp

C. A. Brattstrom, general manager of the Geo. H. Morrill Co., Division of Sun Chemical Corporation, has announced that John H. Feldkamp has been appointed assistant to the general manager with headquarters in New York. Mr. Feldkamp has been associated with the newspaper industry in production capacities and also in the supply field, for the past several years as sales representative for Morrill in the middle west.

N. Y. Co. Adds Presses

Hinkhouse, Inc., New York lithographing and printing firm, was installing a Miehle 29 offset press at the end of the year. A second press of the same type is to be added later this year, according to a company spokesman.





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Little Rock, Ark. Roach Paper Co.
Long Beach, Calif. Blake, Moffitt & Towne
Los Angeles, Calif. Blake, Moffitt & Towne
Louisville, Ky. Louisville Paper Co.
Lynchburg, Va. Caskie Paper Co., Inc.
Manchester, N. H. C. H. Robinson Co.
Memphis, Tenn. Louisville Paper Co.
Miami, Fla. Everglades Paper Co.
Milwaukee, Wis. Allman-Christiansen Paper Co.
Sensenbrenner Paper Co.
Minneapolis, Minn. Wilcox-Mosher-Leffholm Co.
Nashville, Tenn. Bond-Sanders Paper Co.
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New York, N. Y. Baldwin Paper Co., Inc.
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Omaha, Neb. Western Paper Co.
Philadelphia, Pa. Atlantic Paper Co.
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U. S. is Undecided on Bonds

After experimental runs the printing of U. S. savings bonds by offset lithography has been stopped for further study, the U. S. Treasury Department announced January 29. Experiments with offset for bonds have been carried on for some time by the Bureau of Engraving and Printing in Washington (*ML*, Jan., Pg. 71), to determine offset's value as an alternative method to steel engraving. The engravers union objected to a proposal to substitute the offset method, claiming that it would open more opportunities for counterfeiting, although other non-negotiable bonds are produced by offset.

The Bureau estimated that if the savings bonds could be shifted to offset a saving of \$665,000 a year would result. The Treasury said that a decision on how to print the bonds would be made soon.

Printing Popular in Schools

Printing courses to train high school boys in the rudiments of the trade are among the most popular subjects offered by the nation's public vocational institutions, it was learned at the recent Chicago convention of the American Vocational Association.

Responding to the demand, school boards are investing in a considerable volume of modern printing equipment, but most of it, however, appears to be for letterpress operations. Some interest is being shown in screen printing but, as yet, it was said, only a comparatively few schools offer courses in offset printing. Most teachers are only vaguely familiar with the process and seem to feel that it is something "mysterious," it was noted. They also fail completely to appreciate the growing importance of lithography in commercial graphic arts reproduction work, discussions with teachers suggested.

Where "offset" is now offered, the courses, it was claimed, are often built around the small office duplicating devices. These, one commentator remarked, fall far short of the ideal in preparing a boy for a life-

time career in lithography. Comment was also heard on the effects which union apprentice ratio rules are having in restricting instruction in offset printing in the public vocational schools.

On hand to "sell" lithography to the vocational teachers at the convention was John T. Porter, manager of the educational services department of American Type Founders, Elizabeth, N. J. Mr. Porter never seemed to lack for an audience, the A.T.F. booth being continuously crowded with visitors seeking to learn of the latest printing developments.

Plenty of printed matter was available for printing schools, and there was an encouraging demand, Mr. Porter said, for a folder which describes the complete A.T.F. offset printing unit, designed for use in vocational schools, colleges and universities.

During the convention a conference on the theme "Improving Graphic Arts Instruction Through Cooperation With Industry" was held under the sponsorship of the Inter-

national Graphic Arts Education Association and the printing section of the Chicago public schools. Among members on a panel which discussed "What Does Industry Want From the Schools?" was Frank J. Bagamery, secretary and general manager of the Graphic Arts Association of Illinois, Chicago.

Members of a second panel which discussed "How Schools Are Meeting Industry's Needs," were Patrick F. Boughal, New York School of Printing, and president, International Graphic Arts Education Association; Kenneth R. Burchard, assistant dean, School of Printing Management, Carnegie Institute of Technology, Pittsburgh, Pa.; Byron G. Culver, supervisor, department of printing, Rochester Institute of Technology, Rochester, N. Y.; John G. Henderson, head of the Dept. of Printing, Washburne Trade School, Chicago; Charles E. Kennedy, director, Southern School of Printing, Nashville, Tenn., and Herbert Warfel, printing instructor, Joliet, Ill.

Joins Donnelley as Librarian

H. Richard Archer, for eight years supervising bibliographer at the Clark Memorial Library of the University of California at Los Angeles where he helped to develop one of the important graphic arts collections in the U. S., has joined the staff of R. R. Donnelley & Sons Co., Chicago, as librarian, it was announced last month.

In his new post he is in charge of both the Donnelley Memorial and Training Department libraries. The former consists of volumes which the company has manufactured in whole or part in the course of its 90-year history. The collection is housed in 3-story, cathedral-like quarters built as a memorial to the founder of the company.

The Training Department library consists of thousands of volumes used for reference purposes and in the company's training courses for apprentices, management trainees, and other employees. This library contains many rare and valuable specimens of printing, the company says.

What makes cancer MAN'S CRUELEST ENEMY?

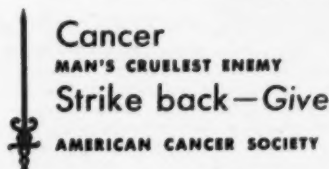
SOME diseases kill us mercifully.

NOT CANCER. Yet, if nothing is done, 23 million living Americans are destined to die of cancer . . . 230,000 of them this year.

SOME diseases reveal their beginnings by pain or fever or shock. Not cancer. It starts silently, secretly, and too often spreads rapidly.

AND SOME diseases spare us our young people. Not cancer! It strikes men and women and children, the old and the young. If nothing is done, one American in five will be stricken with cancer.

SOMETHING CAN BE DONE. You can strike back at this cruel killer with a really generous gift to the American Cancer Society. Your money is *urgently* needed—for research, for education, for clinics and facilities. Please make it a really BIG gift!



PRESSMEN'S INK HANDBOOK

by H. J. Wolfe

272 Pages

CONTENTS

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Chapter

1. **Properties of Inks** . . . Review of physical characteristics; general types of inks; steps in manufacture of inks; definition of terms.
2. **Purchasing Printing Inks** . . . Ink requirements and specifications; "doctoring inks"; selecting your supplier; estimating ink consumption for offset work and letterpress; ink coverage chart.
3. **The Private Ink Plant** . . . Analyzing some of the misconceptions as to the advantages of operating your own ink plant; discussion of the "basic ink system."
4. **Manipulation of Ink** . . . Color matching and what the pressman can safely do to "adjust" inks; ink storage, shelf life; additions of reducer, drier, varnish, etc.; improving body.
5. **Inorganic Pigments** . . . Properties and characteristics of pigments as they affect inks; discussions of natural and manufactured mineral pigments; charts showing properties and uses of ten mineral pigments and 18 important inorganic pigments.
6. **Organic Pigments** . . . History, preparation of intermediates; charts showing properties and uses of more than 45 important organic pigments; classification of dyestuffs.
7. **Black Pigments** . . . General discussion; characteristics and manufacture; lampblack; furnace black; thermal decomposition blacks; mineral black; manganese black; graphite; iron oxide black.
8. **Printing Ink Vehicles** . . . Vegetable drying oils; linseed oil and linseed oil varnishes; lithographic varnish; chinawood or tung

Chapter

- oil; soybean, oiticica oil; vegetable semi-and non-drying oils; alkyd, fish, rosin, fatty acid, mineral oils; pitch varnishes.
9. **Driers and Drying** . . . The six methods of drying; theories of drying; paste driers, japan driers; concentrated driers; cobalt driers.
10. **Letterpress Inks** . . . Ink classification, specification of stock; job press inks; automatic press ink; flatbed cylinder press inks; web press inks; required properties of the inks; relation of ink to stock; inks for various stocks and their requirements; halftone black inks and process inks.
11. **Lithographic Ink** . . . Requirements and characteristics are given for lithographic inks; offset printing inks; dry offset printing inks, etc.
12. **Intaglio Printing Inks** . . . Requirements of inks for intaglio printing; copper plate engraving inks; steel plate engraving inks; stamping inks; photogravure inks; rotogravure inks; classification of rotogravure inks.
13. **New Types of Inks** . . . Thermosetting inks; synthetic litho inks; hot wax inks; aniline inks; steam-set or moisture set inks; pressure set inks; silk screen inks; metallic inks; water color inks.
14. **Testing of Inks** . . . Equipment needed; dry color testing for strength; resistance, permanence, particle size, etc.
15. **Ink Problems and Remedies** . . . Ink difficulties encountered in letterpress and lithographic printing are detailed, listing the symptoms, causes and suggested remedies.

Glossary

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Platemakers Organize in Chicago

The Midwest Litho Trade Association has been organized in Chicago with 22 founding members representing trade platemaking firms in that city. Incorporation papers were filed at the state capital in January.

Paul Hanson, vice president of Chicago Litho Plate Graining Co., is president of the new organization; Phil Heinz of Process Color Plate Co., is vice president; Ray Anderson of Superior Engraving Co., secretary; and Chas. Roeder, Roeder Studios, treasurer. Directors include these four officers, with Walter Stern, Rightmire-Berg Co., Wm. Polzin, A.B.C. Lithoplate and Graining Service, and Willis R. Perry, Offset Platemaking Service.

Purposes of the new association, as explained by Lester von Plachecki, of the Von Studios, who was appointed publicity committee chairman, are to promote the welfare of the litho platemaking industry by organizing and disseminating material of value in increasing the efficiency of the industry's operations and production methods; to encourage social relations of the membership; and to cooperate in promoting the mutual interests of other allied industry groups and organizations.

Meetings are to be held on the first Tuesday of each month at 6 p.m. at the Como Inn, at 546 N. Milwaukee Ave. First educational meeting of the new association was held Jan. 5, with Ted Dadisman, vice president of Printing Developments, Inc., as guest speaker.

Typo Firm Enters Offset

R-T-K Offset, Inc., newly organized Chicago litho firm, has completed installation of a new Miehle 29 offset press and has begun operations as an affiliate of Runkle-Thompson-Kovats, Chicago commercial typographers. The company has done letterpress printing for 28 years and also operates a bindery, and was persuaded to enter the offset field because of demands from its customers for this service, according to J. D. Girard, production manager of the new offset service. Operations are conducted in a section of the building at 650 W. Lake St.



Chicago Assn. Elects

William H. Sleepack, Jr., (above) head of Sleepack-Helman Printing Co., Chicago combination plant, was elected president of the Graphic Arts Association of Illinois, Inc. at the annual business meeting Jan. 18. Other officers elected are: first vice president—John H. Goessels, Jr., C. O. Owen & Co., Maywood, Ill.; second vice president—Norman B. Jacobson, The Huron Press, offset firm, Chicago; third vice president—Fred C. Landis, Logan Printing Co., Peoria, Ill.; treasurer—Chas. J. Farwell, Jr., C. J. Farwell Co., Chicago. Frank J. Bagamery was continued as secretary and general manager.

Among new directors elected for a two-year term were representatives of two offset companies, William R. Barnes of A. R. Barnes & Co., Chicago, and Wm. Bold, of Rand McNally & Co., Skokie.

Holdover directors representing offset firms include Z. Wayne Adams, Magill-Weinsheimer Co., Carl Gorr, Carl Gorr Printing Co., George C. Melin, George C. Melin Printing Craftsmen, and Nicholas J. Vander Kloot, R. R. Donnelley & Sons Co.

Natl. Press Adds Web

American Type Founders recently delivered and erected a special forms press at National Press, Chicago. It contains, in addition to two offset lithographic stations, a hot spot car-

bon printing unit. It is the newest machine of this type, which ATF has been manufacturing for the past four years at its Mount Vernon Division.

The press is equipped with a two roll unwind stand and a flat sheet slow-down delivery. It will number on the face of both webs, and perforate both lengthwise and crosswise. It will be used for printing business forms which have spot carbon on the back of one form. Web width is 26 inches; cylinder circumference is 17 inches. The overall length of the press is 23 feet and it runs at speeds up to 10,000 cylinder revolutions per hour. One set of turning bars was furnished with the press.

Chicago Co. Adds Press

McCormick & Henderson, Inc., Chicago combination shop, recently installed a new Harris 17 x 22" offset press, which C. E. Barrow, superintendent, said replaces an older model of the same make. The offset department, he said, includes four presses of different sizes to handle a general line of commercial work.

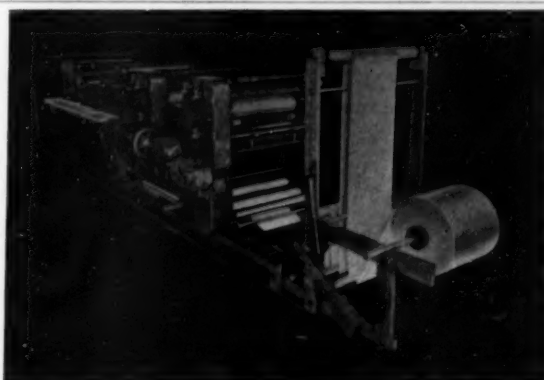
Excello Adds Two-Color

Excello Press, Inc., Chicago, has completed installation of a new Harris 22x34", two-color offset press, the third of its kind to be put in within the past 12 months. Excello now has 12 offset presses, all Harris models, according to Harry Wildman, cost engineer.

Collins Buys ATF Web Offset

Recent purchase of a 26-inch two-color web-fed press from American Type Founders was announced recently by J. I. Collins' Sons, Inc., Chicago. The press has a maximum printing area of 25½ by 22 inches. The roll stand is equipped with a P.I.V. speed drive and automatic tension control to take 40 inch diameter rolls with a three-inch core. Both sides of the web may be printed by use of turning bars.

Register can be changed by plus or



minus ½ inch while the press is running, with a side register adjustment. A compensating roller takes care of running register adjustments. A combination numbering and imprinting unit is included with the press.



Marks 50th Year: New Press

Hillison & Eiten Co., Chicago combination plant, marked its 50th anniversary by making itself a birthday present of another big offset press. It's a Miehle No. 61, 42 x 58 two-color model, shown here. M. E. Hillison, (center), is chairman of the board, with W. J. McWilliams, (left), and Charles D. Kayser of the Miehle Printing Press and Mfg. Co.

Opened on Jan. 5, 1904, the company which occupies a block-long building at 638 S. Federal St., ranks as one of Chicago's 20 largest printers. Letterpress work was done exclusively until four years ago when the first two 29-inch offset presses were installed. Two others soon followed and lithographing facilities are being rapidly strengthened. The changeover to lithography, said Joseph L. Strauss, Jr., president, is one of the most remarkable angles of the firm's recent growth.

Large display space in two Chicago newspapers called attention to Hillison & Eiten's golden anniversary. Customers also received a letter giving a brief history of the enterprise and thanking them for their part in its success. Gold stickers are to be used on all letterheads and proof envelopes throughout 1954, Mr. Strauss said, and there are to be desk calendars and book matches to mark the milestone. An interesting by-product of the event was an article in the financial section of the Chicago Daily News on "Quality: It Pays in the Printing Field," which cited the half-century old Hillison & Eiten Co. as one of

a decreasing group of quality printers in Chicago who specialize in fine work.

The firm was founded by a youthful Des Moines, Ia., printer, M. E. Hillison, who has made a week-end trip to Chicago in 1900, intending to stay only a day or two. He thought he could do better in the big city than back in the gas-lighted composing room. So he decided not to go back home. For a year he worked as a compositor until he was promoted to foreman of the A. L. Swift Co. (now out of business). Then came his venture on his own as founder of Hillison Bros. in 1904. This was succeeded by Hillison & McCormick Co. and in 1906 it took the present name of Hillison & Eiten Co.

Among patrons today Mr. Strauss mentioned utility companies, bicycle, steel, radio, cosmetic and drug manufacturers and the Chicago Art Institute, all of whom demand fine quality work.

Mr. Strauss is active in printing industry affairs as a director of the Franklin Association of Chicago, an employer group handling labor relations. He was chairman of the Graphic Arts section of the recently completed Community Fund drive and is a past president of the Society of Typographic Arts.

Mr. Hillison, the founder, now chairman of the board, is still active daily at his office desk. Ray C. Bennigsen is vice president and Richard R. Armstrong is treasurer. Chas. J. Jedd is general superintendent and Melvin M. London is superintendent of the offset department.

chairman the 1954 executive committee of AP&L. Clyde K. Murphy, Blackwell-Wielandy Co., and George Von Hoffmann, Von Hoffmann Press, Inc., were named to serve on the committee along with the officers.

Chosen to serve three-year terms as directors of the group were the following: Mr. Corley, O. A. Dorn, Concordia Publishing House; Donald Nies, Nies-Kaiser Printing Co.; Mr. Von Hoffmann, Les Wiperman, Sr., Garrison-Wagner Printing Co. and A. L. Wunsch, Bechtold Co.

Twelve directors whose terms continue for one and two years are the following: L. B. Brown, A. R. Fleming Printing Co.; C. A. Bruce, Bruce

Burgess Printing Co.; Mr. Gannett; Clyde W. Hilton, Hilton Printing Co. Inc.; Oscar Hoffman, Superior Type-setting Co.; Mr. Keeler; Mr. Kutterer; Mr. Rauchenstein; Clyde K. Murphy, Blackwell-Wielandy Co.; Harry A. Pecher, Skinner & Kennedy Co.; Herbert Sayers, Sayers Printing Co. and Harry A. Wellington, Wellington Printing Co.

Typography Workshop Set

A Typo-Design Workshop, at the Warwick Typographers' plant in St. Louis, has been scheduled for March 27 and 28. The two-day program, covering every phase of typography and design, is being sponsored by the International Association of Printing House Craftsmen, Inc., in cooperation with the Typocrafters, led by Hec Mann, of Mt. Morris, Ill. and J. L. Frazier, editor of "Share Your Knowledge Review."

The Typocrafters will act as instructors for the workshop, utilizing blackboard instruction.

Adds Another Four-Color

Regensteiner Corp., Chicago, started erection last month of a new Harris 52x76" four-color offset press and a Lanston photocomposing machine of the largest size. Within the past 12 months, Arthur Shadlen, superintendent, said, an identical four-color Harris and two two-color Harris presses were installed, also another Lanston photocomposer like the one received in January.

Lawson Appoints Trittipio

The appointment of Frank J. Trittipio (right) as sales representative for the northern half of Indiana and southwestern corner of Michigan as the latest step in midwest expansion plans, has been announced by D. W. Schulkind, President of E. P. Lawson Co., New York.

He formerly was a principal in Printers Supply Service of Chicago, a company founded by his father, F. A. Trittipio, over 30 years ago. He holds membership in the I.T.C.A., Northside Printers Guild of Chicago, and the Chicago Printing House Craftsmen.

Mr. Trittipio will make his headquarters at the Chicago office of E. P. Lawson, located at 628 So. Dearborn Street.



Kutterer Elected in St. Louis

Raymond Kutterer, of Kutterer-Jansen Printing Co., was named president of the Associated Printers & Lithographers of St. Louis, at recent elections, and was installed early this month.

Other officers chosen for 1954 include the following: Henry Keeler, Jr., Keeler-Morris Printing Co., vice president; Frank Corley, Jr., Corley Printing Co., secretary; George Gannett, The George D. Barnard Co., treasurer and Fred Winsor, executive vice president.

Past President Frank Rauchenstein, Cavanagh Printing Co., was appointed by President Kutterer to

Award Entries May Exceed 2000

Entries in the 4th Lithographic Awards Competition and Exhibit, sponsored by the Lithographers National Association, are expected to exceed last year's record of 2,000 pieces of offset material which resulted in the most successful competition in the association's history.

The prediction, made by Ralph D. Cole, chairman of the lithographic promotion committee, is based on the exceptional interest manifested by lithographers and advertisers in the early stages of this annual event which this year will give recognition to the most outstanding lithography produced in 1953.

In recent weeks, the committee distributed more than 30,000 entry blanks and announcement brochures throughout the country to national advertisers, advertising agencies, commercial art firms and lithographers. The latter do not have to be members of LNA to enter material.

All entries in the 44 classifications of lithographic material, which must reach LNA headquarters prior to the deadline on March 1, will be rated by a panel of judges on the basis of lithographic quality, design and art, and functional value. The judges will be announced in the near future, Mr. Cole said.

The opening exhibit of the 4th awards Competition will be held in the Vanderbilt Suite (Room 108) of the Biltmore Hotel, 43rd St. & Madison Ave., New York City, from May 7 to 14. The winners will be announced at the opening on May 7, and certificates of awards and honorable mention will be mailed to winners.

Additional entry blanks and details of the competition may be obtained from the association's headquarters at 420 Lexington Ave., New York, or from its western office, 127 N. Dearborn St., Chicago 2.

Mo. Companies Add Presses

Greiner-Fifield Litho Co., Kansas City, recently added a Harris 42 x 58" two-color offset press. Mernagh Printing & Litho Co., St. Louis, added a Harris 21 x 28".



Smit Heads MLA

Philip Smit, of Lutz & Sheinkman, was elected president of the Metropolitan Lithographers Association, Inc., New York City, at a meeting last month. Named with Mr. Smit were George Schlegel III, Schlegel Lithographing Corp., vice president and George Kindred, Kindred-Maclean & Co., treasurer.

Also chosen at the meeting were the following directors: Bernard S. Rosenstadt, Ardlee Service; Victor Friedman, Crafton Graphic; Sydney Fenollosa, General Offset; Jack Gold, James Gray; Osmond Johnson, O. B. Johnson and Alfred Neff, Neff Lithographing; John E. Cogley continues as executive director of MLA.

Mr. Rosenstadt, outgoing president of the association, was presented with an engraved desk set by William Winship, Brett Litho, who reviewed Mr. Rosenstadt's two year term as president. In taking over the post, Mr. Smit pledged continuance of speedy service on labor problems and a program of regular association meetings on top management problems.

With the new president as moderator, Daniel Arvan, counsel and labor relations adviser for the group, discussed labor problems as part of a special question and answer session.

Richards Heads N. E. Guild

Albert A. Richards, Jr., manager of the lithograph division, Bingham Brothers Co., Cambridge, Mass., succeeded Robert S. Elliott, New England sales manager for S. D. Warren Co., Boston, as president of

the New England Printing Supply Salesmen's Guild last month. Richards has been vice president. Elected to that post was Philip C. Shakespeare, Jr., New England manager, Kohl & Madden Printing Ink Co., Inc., Boston, who had been secretary-treasurer. C. Shepley Cleaves, new England manager, Ludlow Typograph Co., Boston, succeeds Shakespeare.

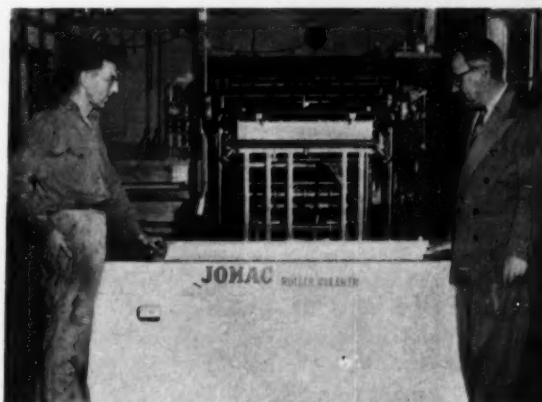
Reelected to the board of directors were Frank E. Garrity, Beacon Printing Ink Co., Boston; Edward J. Brady, Barta-Griffin Co., Boston; Addis W. Dempsey, Donovan & Sullivan Engraving Co., Boston; William J. Leahy, Wild & Stevens, Inc., Newton Upper Falls, Mass.; Philip J. McAteer, New England Electrotypes Co., Boston; Peter H. Miller, Blatchford Metal Div, National Lead Co. of Massachusetts, Boston; Carl A. Nelson, American Type Founders Corp., Boston; Theodore P. Randall, Roberts & Porter, Inc., Boston; Harry C. Rodd, Royal Electrotypes Co. of New England, Boston; Albert Shaw, Dayton Rubber Co., Boston; Francis J. Tominey, New England Printer and Lithographer; and Willard K. Joyce, Miehle Printing Press & Mfg. Co., Boston. Also on the board are all officers and retiring president Elliott, as ex-officio.

Clerkin Appoints Agency

The Charles F. Clerkin Co., New Haven, Conn., manufacturers of chemicals for lithographers and plate makers, has appointed the Daniel F. Sullivan Co., Boston, as advertising agency, to promote its products via trade papers and direct mail.

Adds Cleaner

Meriden Gravure Co., Meriden, Conn., recently installed a new Jomac roller cleaner in its offset pressroom. Shown here are Frank G. Poll, litho foreman (left) and Charles M. Gibb, Jomac representative.



Negotiations Opened

Negotiations for new labor contracts opened recently in several lithographic centers. These include Seattle, Portland, Los Angeles, and Wilmington. In the latter city, a two-year contract was signed, providing for a 35 hour work week, all shifts, to be effective October 31, 1955. A wage increase of \$5 across the board, was effective Jan. 1, '54. An additional increase of \$4 across the board, effective Jan. 1, 1955, also was included.

Burt Strike Continues

A strike of members of Local 2, Amalgamated Lithographers of America against the F. N. Burt Co., Inc., Buffalo, was continuing late in January. The strike began on November 10. ALA reported that 90 members were involved in the stoppage against the box manufacturing firm. Higher wages were reported as the chief demand.

Rice Now Sole Owner

Peter A. Rice now is the sole owner of Capricorn Litho Co., 52 East 19 St., New York. As of January 1 Mr. Rice purchased the interest of his partner and co-founder of the business, John White.

Favorite Promoted

George U. Favorite, who joined Edward Stern and Co., Inc., Philadelphia, in 1939, has been appointed secretary of the corporation. Mr. Favorite, who interrupted his position at Stern for a three-and-a-half year tour of duty as a naval aviator, had been assistant to the president.

New Calif. Offset Plant

A new offset printing plant has been opened in Altadena, Calif., by Miss Colleen Neblett and Philip G. Moore. Called the Nemco Co., the modern plant offers 24-hour service.

McAlonen Joins Heywood

Joseph A. McAlonen Jr., formerly with Brose Lithographing Co., has joined the sales staff of R. R. Heywood Co., New York lithographing concern, it was announced in January by Donald S. Kelley of the Heywood Co.

Kahdeman Joins Chemco

Appointment of Richard Kahdeman (right) as sales and technical representative on photoengraving, gravure and lithographic equipment and supplies in the St. Louis area for Chemco Photoproducts Co., Glen Cove, N. Y., was announced recently by Sam B. Anson, Jr., general sales manager.

Mr. Kahdeman entered the photoengraving field as a commercial artist and experimental press photographer for the Universal Match Corporation, where he worked on the development of a mechanical four-color masking system. After leaving Universal, Mr. Kahdeman joined a commercial photoengraving and offset company.

He is located in Chemco's Chicago office of which Spillman Gibbs is branch manager.



Malone Reelected in Nashville

Nick D. Malone, vice-president of Stoddard's Inc., was reelected president of the Printing Industry of Nashville at the 41st annual meeting at Richland Club January 15. Other officers, also reelected, are Charles G. Pirkle, Benson Printing Co., vice-president; and directors: E. F. Waters, Methodist Publishing House; John Ambrose, Ambrose Printing Co.; A. J. Baird, Baird-Ward Printing Co.; Sewell Brandau, Brandau-Craig - Dickerson; Fritz Bateman, Capitol Engraving Co.; Raymond

Francis, Francis and Lusky Co.; and Larry Williams, Williams Printing Co. W. C. Boles is executive secretary, with headquarters at 1102 Sudekum Building.

Legg Changes Name

Legg Litho-Press is the new name of the Chicago printing concern which has operated for 25 years as the Howard E. Legg Co. The change became effective Dec. 1 when the company moved to more convenient quarters at 7905 S. State St., Chicago 19. The company started out as a letterpress printing shop, Mr. Legg stated. In 1945 he installed his first offset equipment, which now includes two ATF-Webendorfer presses, doing largely black and white commercial advertising work. He soon found that his letterpress business was dropping behind while the larger volume of production was by offset.

L. L. Brown Sales Winners

First month's prize winners in the current L. L. Brown selling contest have been announced by the Adams, Mass. paper company as Sumner W. Newcomb, Colonial Paper Co., Boston; George H. Lotker, Majestic Paper Corp., New York City and Leonard F. Hilty, L. S. Bosworth Co., Houston, Tex.

Printers Form New Group in N. C.

Officers of the newly formed Printing Industry of Winston-Salem (N. C.) meet to discuss their organization. Seated (L. to R.) John R. Gordon, president; John H. Miller, secretary. Standing, Peter Keiger, vice president; Robert M. Allgood, membership chairman. Not shown is H. T. Hearn, treasurer. Group is a reorganization of the former W-S Printers Club. Membership is open to all print-



ing companies in the area, with associate memberships available to suppliers and persons in allied fields. Group meets Mondays at the local YWCA.

PDI Promotes Oehme



Frank F. Oehme has been appointed field service director for Printing Developments, Inc., a subsidiary of Time, Inc. A veteran of World War II, Mr. Oehme joined a printing ink and litho supplies company after his discharge, later managing his own lithographic plant. He was a press instructor at the Chicago Lithographic Institute for several years. T. A. Dadisman, vice president of PDI, announced the appointment of Mr. Oehme, who joined the firm in 1952 as a sales-service engineer.

Packaging Exposition Set

The Fifth Western Packaging and Materials Handling Exposition, which will be held at San Francisco's Civic Auditorium Aug. 17-19, will emphasize a basic development in the packaging industry, according to Kenneth K. Dean, chairman of the advisory board.

Development of pre-packaging in consumer size units of products heretofore sold in bulk or wholesale size containers, has impressed the entire western industry with its future possibilities. The idea actually was started by retail markets as a work-saving device, but its impact on sales increases surprised even the most optimistic, he said.

Clapp & Poliak, the Exposition's producers, state that more than 70 percent of total exhibit space already has been contracted.

Seeks No-Glasses 3D

Three-dimensional effects from a printed or lithographed sheet, without the aid of glasses or other optical devices, now is claimed to be "just around the corner," as a result of research carried on by Paul A. Hesse,

Hollywood photographer, and Harvey Prever, his research assistant.

Essence of the process is a simplified method for taking multiple-image photographs through a lenticular screen placed over the single film or plate, and which correspond to right- and left-eye views of the human observer.

When the multiple-image picture is viewed through a similar lenticular screen, the illusion of the third dimension is realistic, it is claimed.

Mr. Hesse is already in commercial production of such images made on bromide paper or as positive color transparencies.

He has long been working with the lithographic firm of Einson-Free-man Co., Long Island City, N. Y., in efforts to create the "viewing screen" by press impression rather than applying it in register by hand as Hesse and Prever are now doing.

Gothic Press Expanding

Gothic Press, Chicago, has announced the addition to its staff of Miss Gerry Anderson, who has had nine years of varied experience in the offset field. Previously Miss Anderson was employed by Buchanan Lithograph Plate Co., and Process Color Plate Co., and more recently by the Regensteiner Corp. where she was an estimator. In her new position she will act as general supervisor of production and assistant to Samuel Lipschultz, proprietor. Recently Gothic Press installed a Harris 42 x 58" two-color offset press, the second of this model to be put in since the firm moved in 1952 to its present location at 419 S. Jefferson St.

Von Studios Expands

Von Studios, Chicago trade plate shop specializing in color process plate proofing, has expanded its quarters at 5333 N. Lincoln Ave., by acquisition of ground floor space in an adjacent store building, which will double the available work area. The expansion, said Lester von Plachecki, proprietor, will provide room for a new camera and other equipment needed for his growing business which was started about one year ago.

Heads Moss Promotion



New manager of advertising and sales promotion for Moss Photo Service, New York City, is Harry Gorman, formerly with Kingsley Advertising Service. Appointment marks the first step in an expansion of the executive staff and plant facilities of Moss, according to Oliver Z. Moss, president. He said the expansion was made necessary by recent growth and diversification.

Sale of color-corrected separations and engravings to the offset and letterpress trades was credited by Mr. Moss for contributing to the firm's largest volume year in its history in 1953.

West Joins Southwest in Dallas

In charge of Litho-Krome sales for Southwest Printing Co. is Jack D. West, who formerly was Texas division manager for another lithograph company. He is a graduate of the University of Wichita, Wichita, Kan.

Jackson with Economy

Elmer Jackson, long active in the Craftsmen, being president of the Los Angeles club in 1935-36, is now with the Economy Lithograph Co.

Texas Firms Expanding

Exline-Lowdon Co., Dallas, recently added two Harris 22 x 34" single-color offset presses. Federal Printing Co., same city, put in a Harris 21 x 28" press.

Kansas Firm Adds Two-Color

Western Lithograph Co., Wichita, Kan., recently added a Harris 42 x 58" two-color offset press.

Oregon Firm Adds Press

Harry S. Hill Co., Portland, Ore., recently installed a Miehle 29 offset press. Doral L. Hoover is manager.



DEPENDABILITY

The tides have become one of the symbols of dependability in nature. While we can't lay claim to dependability on such a grand scale, we can offer the kind of dependability which metal lithographers are looking for, when they invest in machinery. This equipment, with 50 years of experience behind it, is dependable for year-in-year-out service. It's the finest that modern engineering can devise.

Look into the Wagner line whether your need is a complete plant or a single unit.

The Wagner line includes: ROTARY-AIR OVENS, D. E. F. OVENS, AUTOMATIC STRIPPERS, SPOT COATERS, VARNISHING MACHINES, AUTOMATIC FEEDERS, ROLLER REVOLVING MACHINES, LABORATORY COATERS, SYNCHRONIZING DRIVES, AND OTHER SPECIALIZED EQUIPMENT.

When thinking of Progress — think of Wagner!

WAGNER LITHO MACHINERY

Metal Decorating Machinery

Harborside Terminal, Unit 3, 34 Exchange Place, Jersey City, N. J.



Division

Metal Decorating

Some Aspects of High Speed Litho Coating

By C. H. Groff

Technical Director, Watson-Standard Co.*
Prepared by C. H. Groff and E. R. Lawson
Watson-Standard Co., Pittsburgh, Pa.

THE increasing tendency toward higher speed in metal litho coating practices has resulted in the development of special coatings formulations, adapted to high speed operation. These formulations, in addition to being suitable for high speed coating, offer advantages not only of increased production per coater unit, but also certain coating economies.

In increasing the speed of a roller coater from 60 sheets per minute to 90 sheets per minute, it soon becomes evident that conventional coatings, especially pigmented coatings, do not have satisfactory application properties. Centrifugal force tends to "throw" the wet coating from the rolls, a phenomenon known as "flashing" occurs, and the leading edges of the sheets become coated on the reverse side. Very poor "flowing" of the coating is experienced, and a phenomenon known as "wicket-marking" or "ghosting" occurs. High speed operation shortens baking cycles, hence, unsatisfactory "drying" and consequent

"stacking" difficulties become problems.

For reasons of clarity, the above mentioned phenomena referred to in this discussion are described below. "Throwing" is defined as the inability of the wet coating to remain on the rolls at high speed. "Flashing" refers to the discontinuity of the wet coated film on the steel fountain rolls and the transfer roll of the coater. The rolls are not completely de-wetted, but there are spots where the film is very thin. When transferred to the plate, these are evident as areas as large as four to six square inches where the coating is very thin. This results in unsightly appearance and poor protection of the metal in the thin areas. "Edging" refers to the undesirable coating of the reverse side of the leading edge of the sheet. "Flowing" is defined as the ability of the coating to flow out or level on the sheet while in the wet state and during passage through the oven. "Ghosting" or "wicket-mark-

ing" is a phenomenon encountered on sections of the coated sheet opposite the areas of contact of the oven wickets with the sheet. "Drying" is defined as satisfactory conversion of the film to a dry tack-free state by means of solvent evaporation, oxidation, polymerization, condensation, or a combination of these mechanisms. "Stacking" refers to the ability of the coated sheet to be stacked in heavy bundles without sticking together or offsetting, and in such a manner as to permit ease of feeding for subsequent coating or printing operations.

To illustrate the problem of high speed coating involving the above defined phenomena, a white litho finish will be used as an example. At conventional operating speeds of 50 to 60 sheets per minute, such a coating might be run at a viscosity of 50 seconds #4 Ford Cup. It would have a solids content of approximately 55%. In order to obtain a dry film weight of 50 mg. per 4 square inches, it would be applied at a Pfund gauge reading of approxi-

*Before the annual convention of the National Metal Decorators Assn., Chicago, October, 1953.

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*Specialized
Engineering*
IN

YOUNG BROTHERS metal decorating ovens

*Improves Quality
Cuts Costs*



DESIGN Engineering

Young Brothers Metal Decorating Ovens are the product of over 55 years of experience in building individually designed ovens for all types of baking and drying processes...a record unequalled by any other oven manufacturer. As a result, Young Brothers Ovens operate more efficiently, give more production per foot of area occupied and meet the precise requirements for which they are engineered.

SERVICE Engineering

Young Brothers Company maintains a competent staff of twenty Supervisors and Service Engineers ready to serve you. Ovens are assembled and installed in your plant under the experienced direction of these men. Field Engineers are available for consultation, to advise you on production and maintenance problems.

PRODUCTION Engineering

Young Brothers Engineers, through experience, know the basic production problems of the Metal Decorating Industry and have perfected ovens that bake faster and more uniformly... provide large savings in fuel, regardless of the type or size of sheet... handle a wide variety of work requiring a broad range of temperatures and baking cycles.



Write for copy of
Bulletin 7-L

Typical of Young Brothers service is the following comment received as the result of a new installation: "You are to be complimented for the excellent service we received, and, needless to say, it is a pleasure to deal with an organization that is as service-minded as you."

For better finished products in less time, at lower cost, investigate the exclusive advantages that Young Brothers Metal Decorating Ovens offer you.

YOUNG BROTHERS COMPANY
1841 COLUMBUS ROAD CLEVELAND 13, OHIO



Established 1896

mately 13 mm. Although baking time and temperature could vary widely, a typical cycle might be 9 minutes at 300°F. Assuming that this hypothetical coating would perform satisfactorily in all respects at a coating speed of 60 sheets per minute, what would occur if the speed on the same equipment were increased to 90 sheets per minute? Experience has shown that with some specific coatings, some or all of the following occur:

1. Obviously, increasing the coating speed will reduce the time in the oven in the above hypothetical case from a 9 minute peak to a 6 minute peak. It would then be necessary either to raise the oven temperature or to improve the drying characteristics of the coating to obtain satisfactory drying and stacking properties. This was originally thought to be one of the major problems of high speed coating operation, but proved to be one of the more readily solved difficulties.

2. The increased centrifugal force due to high speed operation causes throwing of a conventional coating off the rolls to an extent that in some cases the entire area around the coater is literally showered with coating. (Recommended clothing for this operation is solvent resistant rain coat and umbrella.)

3. The phenomenon of flashing will undoubtedly become a problem.

4. Ghosting or wicket-marking will probably occur, or if present to a minor degree, will become accentuated to the point of causing unacceptable coated sheets.

5. Flowing, or leveling of the wet coating, will usually become markedly poorer.

6. Edging, or coating of the leading edge and reverse side of the sheet, may become serious enough to become objectionable.

From the foregoing, it can be discerned readily that merely speeding up the machinery is certainly not the answer to high speed operation. The coating must be formulated specifically for high speed.

Although the problem has not been entirely solved, considerable progress has been made. Changes made to

improve one property of the coating may adversely affect another property. However, compromises are sometimes necessary to achieve best all around performance.

Some of the modifications necessary to obtain a satisfactory high speed coating are enumerated below.

1. Increased drying speed. This has proven to be one of the less difficult aspects of the problem. Modern synthetic resins and plastics are commercially available which can be made to dry even faster than any metal litho operation so far attempted. The only problems involved here are to obtain satisfactory drying and stacking together with the other necessary qualities. Precise oven control is mandatory since a coating which will bake quickly will usually be subject to over baking.

2. Throwing can be improved or eliminated by higher solids at lower coating viscosity.

3. Flashing can be overcome by reducing the viscosity considerably below that normally used.

4. Ghosting or wicket-marking can be helped by proper choice of solvent balance. It appears to be necessary to use a portion of fast evaporating solvent.

5. Flowing or leveling can be improved by the judicious use of slow evaporating solvents in the solvent combination.

6. High solids appear to improve undesirable edging or coating on the reverse side of the sheet.

Some of the qualities which appear to be necessary for a satisfactory high speed coating might be listed as follows:

1. High solids.
2. Low viscosity.
3. Rapid drying.
4. Fast solvents to eliminate ghosting.
5. Slow solvents for good flow.

The above admittedly looks like a list of opposites. High solids, low viscosity materials usually are the slowest drying. Fast solvents and slow solvents are certainly diametrically opposed. However, it has been possible to formulate coatings which are compromises of these various properties.

Results to date have not quite

duplicated the quality of conventional coatings run at normal operating speeds, however, they are very close.

Most of this discussion has been about white litho coatings as typical of pigmented coatings and the case most difficult to solve. It is also desirable and possible to formulate other types of coating for high speed application. Finishing varnishes, gold lacquers, "C" enamels, "R" enamels, and sizes have also been prepared for higher speed operation.

The problems have not been as difficult here as in white litho work. However, the same general principles of high solids and fast drying appear to apply.

In view of increasingly higher labor and equipment costs, more coated sheets from the same machinery with the same labor time is very attractive. Added to this is the saving gained from higher solids coatings in that less solvent is used to apply the same dry film weight. These factors indicate that metal lithographers are going to demand coatings which can be run at high speed. As protective coating manufacturers, we feel that we have made a considerable amount of progress toward the desired goal. However, even better coatings are desirable and will be developed in cooperation with the users of these materials.★★

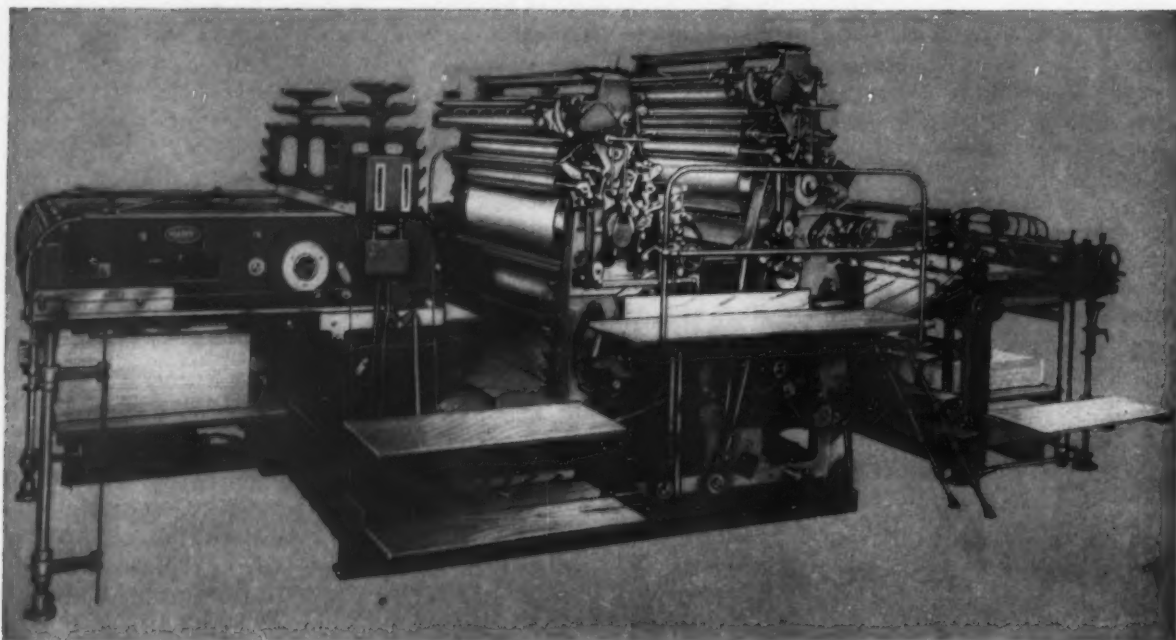
• Crown Merges Subsidiaries

Crown Cork and Seal Co., Inc., announced January 4 that it had merged with its wholly owned subsidiaries. The company absorbed Crown Can Co., Philadelphia, Western Crown Cork and Seal Corp., San Francisco; Crown Cork Specialty Corp., St. Louis; and the Crown Cork and Seal Co. of Detroit. Crown Cork and Seal Co. of Baltimore, a selling company, and an inactive subsidiary, New Process Cork Co., Inc., also were merged into the parent firm.

• Can Strike Ends

Can strikes that had tied up lithographing operations at two major producers for more than a month were settled in mid-January.

Affected were the American Can Co. and Continental Can Co., both



"Our ATF-Mann gives us top quality two-color register...even at top speeds"



That's what you'll hear from printers who own or run an ATF-Mann two-color press. And here's why they do get perfect register every time:

First, the ATF-Mann feeds press sheets in a smooth *overlapping* stream at *one-fourth* press speed. This allows

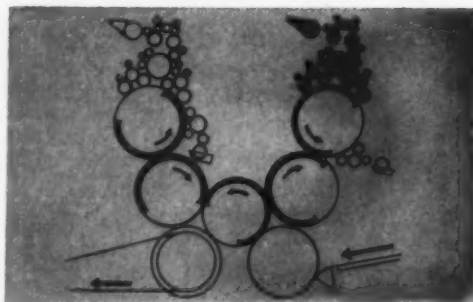
each sheet more time at the front guides for register—and eliminates any bumping of the feed edge of the sheet.

Second, the ATF-Mann's exclusive Swing Feed takes the sheet from the front guides at a dead standstill and smoothly accelerates it to the speed of impression cylinder. Swing Feed grippers do not release sheet until *after* the next set of grippers have closed on it and both sets of grippers have traveled $\frac{3}{8}$ of an inch.

Third, both color impressions are made while the sheet is positively held by a single set of grippers (see diagram at right). There is no transfer of the sheet between impressions.

Fourth, the massive, balanced, rigid construction of the ATF-Mann prevents vibration, deflection or distortion which would throw off register at high speeds.

This sustained register and other exclusive features of the ATF-Mann make the very finest lithographic reproduction possible even at high-production speeds. Write American Type Founders, a subsidiary of Daystrom, Inc., 200 Elmora Avenue, Elizabeth, New Jersey.



SUPERIOR INKING UNITS of the Mann two-color press are designed to give superb coverage, perfectly controlled. 26 rollers in each unit provide more square inches of ink breakup than any other press, size for size.

FLOATING IMPRESSION, essential for the finest offset reproduction, is obtained on ATF-Mann presses by the elimination of bearer-to-bearer contact, use of double blankets, large precision ground helical gears, and an exclusive method of paralleling cylinders.

Ask the man who owns a Mann—he'll tell you it pays to buy the finest

Type faces shown are: Bodoni's, Spartans, Dam Casual, Alternate Gothic No. 2.



Better, more profitable printing from the widest line of processes...

GRAVURE...LETTERPRESS...OFFSET

of New York City. Strikes at both plants were started Dec. 1. The one at American was brought to an end Jan. 12 when the company signed a new contract with CIO steel-

workers, providing an 8.5 cents general wage increase, effective upon return to work. Continental agreed to the same wage increase, effective Oct. 1, 1953.



Top, L. to R.: Earl E. Gray, John P. Blake, and William H. Hugus. Lower: Roy Kritser and Robert L. Singley.

Caspers Advances Executives

Caspers Tin Plate Co., Chicago, has announced the election of Earl E. Gray, formerly vice-president and secretary, as executive vice-president, and the election of four other officers to positions of greater responsibility. Mr. Gray has been associated with Caspers Tin Plate Co. since 1929 and is widely known in the field of metal lithography. He was president of the National Metal Decorators Association from 1941 through 1943.

Bertram W. Bennett, president, said John P. Blake, assistant vice-president, has been elected vice-president — manufacturing; William H. Hugus, sales manager, becomes vice-president — sales; Robert L. Singley, general manager of Closure Lithographing Corporation, a wholly-owned subsidiary, is advanced to vice-president; and Roy Kritser, comptroller and assistant secretary, becomes secretary and treasurer. Mr. Singley is currently secretary-treasurer of the NMDA.

William M. Leitner has been appointed comptroller and Harold W. Cochran manager of sales. L. K. Hitchings, vice-president and treasurer for many years, retires under

provisions of the company's retirement plan.

Caspers Tin Plate Company, located at 4100 West 42nd Place, Chicago, is the largest non-fabricating firm in the business of coating and decorating metal sheets.

Uses Litho'd Garden Markers

Lithographed metal markers for use by home gardeners to identify flower or vegetable seed beds were displayed by the Cherry Valley Mfg. Co., Cherry Valley, Ill., at the National Garden Supply trade show in Chicago last month. J. L. Clark Mfg. Co., Rockford, Ill., handled the lithographing, according to Marvin Palmquist, president of the Cherry Valley firm. On the one-piece tab, approximately 2 x 2½ inches in size, appears the name and a picture of the plant in color, while a narrow stem four inches long provides means for sinking this "Ro-Marx" marker into the soil.

A 26 gauge steel was used and from one to three colors are employed in the designs. These are applied on a base coat of pure white and the job is completed with a varnish coat for "weatherizing" the

marker. The device is printed on large sheets at Rockford and later the individual pieces are stamped out at Cherry Valley. Twenty-four different flower and vegetable subjects are available in sets of twelve each. Plain white markers are also made for marking with grease pencil, if desired, Mr. Palmquist said.

Interchemical Advances Beckett

James Beckett has been elected executive vice president of Interchemical Corporation, New York, manufacturers of printing inks, industrial finishes, textile colors and other chemical coatings.

Charles W. Scott succeeds Mr. Beckett as divisional president of Interchemical's Finishes Division.

Mr. Beckett joined Interchemical in 1929 as manager of its Chicago printing ink factory. Mr. Scott has been with Interchemical since 1940.

Heads Commerce Group

R. C. Rosecrance, president of J. L. Clark Mfg. Co., Rockford, Ill., has been appointed chairman of one of the nine committees which will carry out the program of the Illinois State Chamber of Commerce, statewide organization of industrialists in that state this year. Mr. Rosecrance will head the Highway Policy committee.

Banks Joins Robertson

Robertson Photo-mechanix, Inc., Chicago, has announced that David D. Banks has joined the firm as eastern district sales manager. Mr. Banks, who has had more than 22 years of experience in the graphic arts industry both as a craftsman and in equipment sales, was formerly with Chemco Photoproducts. Mr. Banks will work with the Robertson dealer organization in the eastern section of the country, with his office in New York.

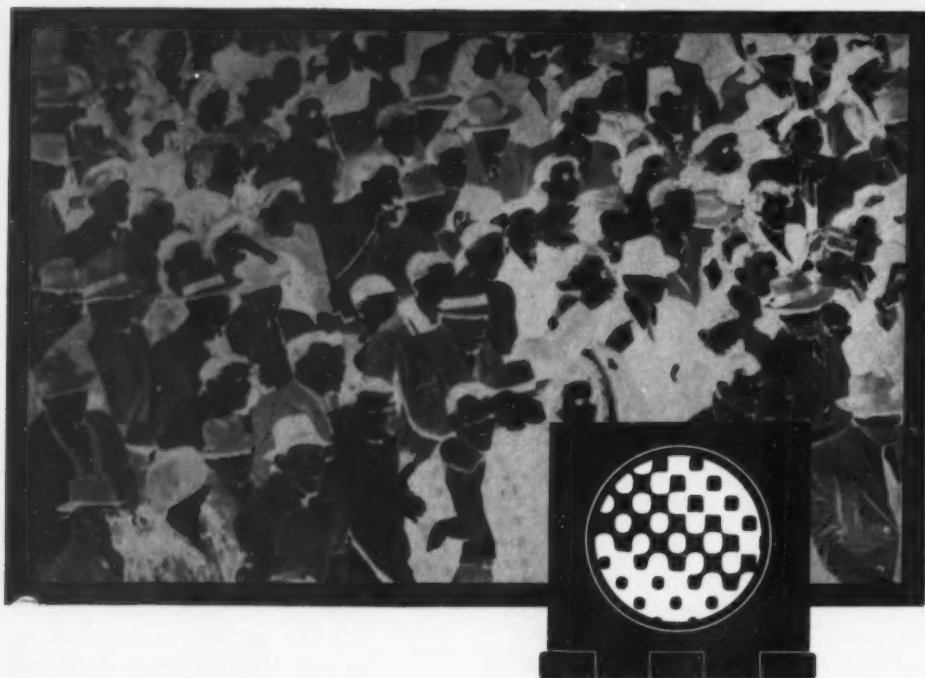
Design Show Opens Mar. 27

The Society of Typographic Arts has set March 27 as the opening date and the Chicago Art Institute as the place of its 27th annual exhibit of "Design in Chicago Printing." Designs in 23 categories, produced during 1953 will be chosen.

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to finished plate...*

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LITHOGRAPHIC SPECIALTIES**



...the line that's "tailored" to fit your exact needs.

RESULTS: Sharp definition of every tiny dot...in your negatives, on your plates, on your proofs. Trouble-free performance in each processing step...fewer make-overs...time saved...more profits.

**ALBUMEN EGG SCALES
AMMONIUM DICHROMATE PHOTO
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CHICAGO • CINCINNATI • CLEVELAND • LOS ANGELES • MONTREAL • PHILADELPHIA • SAN FRANCISCO
Manufacturers of Medicinal, Photographic, Analytical and Industrial Fine Chemicals

Sun Names Craig Tech. Dir.

Thomas J. Craig was recently appointed technical director of Sun Chemical Corporation and its subsidiaries, effective in January. According to Ralph C. Persons, president, this is another step in the corporation's effort to build an organization of specialists in every phase of its operations. In the capacity of technical director, Mr. Craig will be a member of Sun's management committee.

Mr. Craig joined Sun Chemical Corporation in 1944 and has since 1945 served in the capacity of general manager of the E. J. Kelly ink division. Prior to his employment with Sun Chemical Corporation, he was chief of the Production Coding Branch of the War Production Board. Mr. Craig holds a Bachelor of Science degree from the University of New Hampshire and a Master of Science degree from New York University.

In a subsequent announcement, Mr. Craig also was appointed vice president of Michigan Research Laboratories, Inc., a subsidiary of Sun.

Add Photo-Composers

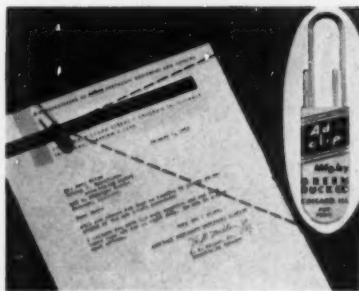
Two metal lithographing firms recently added Rutherford photo-composing machines, it was announced in January. Armstrong Cork Co., Lancaster, Pa., put in a machine to handle plates up to 39 x 46", Crown Can Co., Div. of Crown Cork & Seal Co., Philadelphia, added the same size machine.

Bodie With Milprint

Jack J. Bodie has been appointed to the national sales staff of Milprint, Inc., Milwaukee, Bert Hefter, vice-president and general sales manager, announced recently. Mr. Bodie has been employed as a sales representative for Brown and Bigelow for the last seven years. He will be located in the New York office.

R. B. Johnson Dies in Toronto

Robert Billings Johnson, director and general manager of Harris Lithographing Co., Toronto, Ont., died Jan. 21. He was a graduate of Columbia University and formerly was associated with the Sherwin-Williams Co.



Clips Carry Advertising

Green Duck Mfg. Co., Chicago, claims to have an entirely new advertising medium called "Ad-Clips." It is a standard paper clip with a patented little metal "billboard" which carries colorful advertising messages, slogans or logotypes. Preliminary tests show that Ad-Clips offer an effective way of reaching business men right in their own offices, the company reports.

St. Louis APL Meets

Raymond Kutterer, Kutterer-Jansen Printing Co., was to be installed as new president of the Associated Printers & Lithographers of St. Louis at the annual meeting and inaugural dinner of the group scheduled for Feb. 4 at the Jefferson Hotel. Other officers to be installed included Henry Keeler Jr., Keeler-Morris Printing Co., vice president; Frank Corley Jr., Corley Printing Co., secretary, and George Gannett, The Geo. D. Barnard Co., treasurer.

Featured speaker was to be Charles LaBlanc, member of the executive staff of Research Institute of America, Inc., whose topic was to be "The Salesman Looks at the Sales Executive."

Co. Opposes City Plan

The Sale Lithograph Co., Buffalo, has asked the City Council to hold a public hearing on the company's request to have a portion of its premises excluded from the site of a downtown parking ramp.

The company stated that it believed the council was not sufficiently informed of the damage which the company would suffer if the northerly 50 feet of its property were taken for the garage site. Roy W. Thompson, president of the firm, said the company would be forced to re-locate, if the present plan goes through.

QUOTES

from the mail

Sirs:

I refer to a notice appearing in the December issue of your paper under the heading "Converts Type to Film" (page 103) and where an allegedly new process is described permitting the conversion of type forms into photographic negatives and positives equal size in ordinary room light.

I regret to inform that this process has been used by us for 3 years and was developed by a German firm.

The results are excellent and permit the conversion of very fine halftone work too, far superior in quality to that obtained by usual half-tone screen photography on negative material.

I am however doubtful whether a regular graphic arts film and ordinary inks would yield satisfactory results because:

1) regular graphic art films are of relatively high speed and should not be processed in ordinary room light;

2) because it is not easy to obtain a perfect impression on a non absorbing hard surface of the regular graphic art films with ordinary inks.

To obtain satisfactory results, the German firm developed a special very low sensitive material and a special printing ink.

The process is very similar to that described, though not identical. Attached is a negative to illustrate the quality obtained by this process. We have also transformed 4 color separations by this technique from letterpress into offset.

T. S. Drory's Import/Export
Turin, Italy

I am enclosing a copy of my letter to the Litho Clubs of the N.A.L.C. so that you may correct your listing of our secretary in your publication.

I wish to take this opportunity to thank you for your support of the litho clubs in your publication. Your monthly report on club activities has had much to do with the growth and interest in our organization.

Elliott A. McClelland
Past-President
Dayton Litho Club

Thanks, Mr. McClelland. We hope other Litho Clubs also will assist in keeping this Guide accurate. It appears this month on page 96.

Sirs:

Would you please tell me how I may obtain a copy of the "Blue Book" referred to in the article "How To Analyze Your Cost" by Frank R. Turner, Jr., which appeared in the December, 1953 issue of your publication.

Mr. Turner mentioned that this book (a 56 page study) was distributed at a recent convention of the National Association of Photo-Lithographers.

I would greatly appreciate having any information you could give me regarding this book.

Hugh A. Keller
Euclid, Ohio

This lithographic cost "Blue Book" was compiled and published by the National Assn. of Photo-Lithographers, 317 West 45 St., New York, and sells for \$10.

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ML 254

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125 S. Racine Ave., Chicago 7, Ill.
Send us the quantity of "Speedol" ordered below on your
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COMPLETELY DISSOLVES IMPREGNATED INKS

"Speedol" quickly removes even deeply impregnated dirty ink film from press rollers, dried ink and residue that other wash-up solutions fail to remove. Thoroughly cleans and reconditions rollers and gives them new life.

Go from black to yellow in one washup!

Simply wash off ink with regular solvent, then apply "Speedol" to remove blacks, blues, dried gum, etc. Only ONE special cleaning solution required . . . "SPEEDOL." In semi-paste form, "Speedol" contains NO ACIDS, ALKALI or other irritating solvents. PRICED LOW!

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for Multilith
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Presses at...

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problems due to ink-water balance

AQUA-TROL is a mechanical and
electrical incorporation of balanced air volume,
air baffling and air temperature... AQUA-TROL is the
most practical... yet the most revolutionary contribution

to offset printing in many years. Its principle
is a controlled evaporation differential between plate and ink roller surfaces.

It is well designed and its high quality components will give years of dependable
service. The advantages of AQUA-TROL are so startling they will be apparent
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NEW AQUA-TROL UNIT CREATES SENSATION AMONG LITHOGRAPHERS

AQUA-TROL is the most practical... yet the most revolutionary contribution to offset printing in many years. Its principle is a controlled evaporation differential between plate and ink roller surfaces.

DAILY USE REVEALS THESE FACTS ABOUT AQUA-TROL:

1. Spoilage is greatly reduced because "ink color" is brought up with fewer run-in sheets... The loss being as few as two or three sheets on many jobs.
2. Moisture-free ink dries faster on paper, allowing jobs to be backed up or trimmed much sooner than under normal conditions.
3. Black ink prints jet black... colors print strong, bright and consistent throughout the press run. Adjustments of ink and water controls are less critical and very seldom need attention after the run is started. Color is maintained during reloading by allowing the press to idle with only the ink fountain shut off.
4. Plate life is increased up to three times normal... After each transfer, the plate receives a fresh layer of moisture-free ink... leaving no chance for acid foun-

Why Aqua-Trol Works

When an ink roller crosses a water-charged plate surface there is a transfer of water into the inking system. This water which adheres to the ink surface is mechanically emulsified by rotation of the ink rollers. During operation of the press, the percentage of water in the ink will increase until a balance is reached between "acceptance" of water from the plate surface and "evaporation" of water from the ink roller surfaces. This is why a press with many ink rollers will handle ink better than a press with only a few... There is more surface area from which water may evaporate.

The air surrounding a press under normal circumstances takes water by evaporation from the plate surface at the same rate that it takes water from the ink roller surfaces... Increase the amount of water on the plate surface... and the percentage of water in the ink will rise... Decrease the plate surface water... and the percent of water in the ink will become less. This condition makes control of ink and water adjustments very critical, for enough water must be applied to the plate to desensitize non-printing areas, yet care must be taken not to reach the water

tain water to penetrate and break down the plate image.

5. Transfer is sharper and cleaner because the dampening system may be adjusted to meet the requirements of the plate without danger of watering up the ink.
6. *AQUA-TROL* repays its cost in only a few weeks by increasing average press speed and decreasing spoilage... And it improves quality immediately.

level which will eventually destroy the transfer quality of the ink and break down the plate image after a few thousand impressions.

AQUA-TROL relieves this critical condition. It creates a correct rate of evaporation from the ink roller surfaces without affecting the normal rate of evaporation from the plate surface by directing a controlled flow of air against a roller in the inking system. *AQUA-TROL* removes water from all the ink rollers in the same way that a wash-up blade collects ink from the entire system.

Continuous removal of moisture from the ink allows the dampening system to be set to meet the requirements of the plate without danger of watering up the ink, and makes setting of the ink fountain dependent only on the requirements of the form being printed.

Boom For Paper Plates

Multilith and Davidson owners are enthusiastic users of *AQUA-TROL*. Substantial savings are apparent in stenographers' time and in plate cost... because no make-over plates are needed.

Direct image plates run at least 3 times as many good copies with *AQUA-TROL*.



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Litho Club

NEWS

NALC Convention Program is Outlined

DETAILS of the convention program of the National Assn. of Litho Clubs were announced in January, following a council of administration meeting of NALC officials in Dayton, Ohio. William J. Stevens, Miehle Printing Press & Mfg. Co., New York, former secretary and president of the NALC, who is general chairman of convention arrangements, announced the program.

The dates are Friday and Saturday, May 7 and 8, and the place is the Biltmore Hotel, New York. Officers and committees are scheduled to meet on the day preceding the convention opening. Registration also will open Thursday afternoon.

Friday's program will consist of two convention sessions with a luncheon and speaker between. The Litho Club of New York will be host Friday evening at a reception.

The Saturday session will resume with business, and a technical round table discussion will be held from 10 a.m. to noon.

No afternoon session is planned for Saturday, and the annual banquet will be held that evening. The New York club is combining its annual ladies night dinner dance with the convention banquet.

The fourth annual Lithographic Awards Competition exhibit will open at the Biltmore during the convention, and winners will be on display. This will represent the best in lithography produced in 1953 in 44 classifications of work.

Ladies attending the convention will take a boatripe around Manhattan Island (New York City), luncheon, and a tour of Radio City.

Committees named by Mr. Stevens include the following: reception—

Angelo Pustorino, president of the Litho Club of New York, with members of the club's board; printing—Dan Ford, Mr. Pustorino and Don Rovegno; ladies—Mrs. Pustorino, Mrs. John Maguire, Mrs. Elizabeth Murphy, and Mrs. William J. Stevens;—publicity—Mr. Stevens, Sol D'Alessandro, M. J. Earle, Robert P. Long, Sam Cousley, Leo Joachim, and W. O. Morgan; finance—Arthur Tarling, Jack Tisne, John Maguire and Sidney Smith; technical—William Falconer; banquet—Michael Annick, John Collison and Leonard Adams; registration—John Scharffenberger and Edward Rahn; and entertainment—Mr. Annick and Mr. Stevens.

Andrew Balika, Cleveland, is president of the NALC, and Mr. D'Alessandro is secretary.

Skomar Heads Twin City

Barney Skomar was elected president of the Twin City Litho Club at its first 1954 meeting last month, the club reports. Other officers, elected at the meeting in the Covered Wagon, Minneapolis, include George Kueppers, vice president; Ed Sorenson, secretary; Norman Albrecht, treasurer; Earl Olson, editor; Herman Goebels, program director; Marvin Haenze, scribe, and Emmett Coggin, sergeant-at-arms. Mr. Kueppers and Robert Batten are serving on the membership committee.

Three new members were initiated at the meeting, which was attended by 38 members and five guests. The newcomers are Al Thielen, W. G. Anderson Co., Minneapolis; Carl Olson, Automatic Printing Co., Minneapolis and Lee Harrison, Duffey Paper Co.

First president of the club, Charles Buettner, of Sigmund Ullman Co., was on hand for the installation of officers. Mr. Buettner praised the rapid growth of the Twin City Club.

Members heard a talk on "What the Dultgen Process Has Accomplished for the Gravure Industry," by Kenneth Johnson, of Brown & Bigelow Co., St. Paul. Mr. Johnson used a film to illustrate his talk.

Litho Club Tours Plant

A tour of Harris-Seybold Co.'s chemical plant will highlight the February meeting of the Cleveland Litho Club, followed by a business meeting and buffet luncheon.

New members of the expanding club include Henry S. Kobak and Milton Jordon. Mr. Kobak is partner in the Acme Paper Tube Co., and Mr. Jordon rejoins the club after five years absence from Cleveland. He is a charter member of the organization, having served as its first treasurer. Mr. Jordon now is production manager and associate of the Rex Litho Plate Co.

A visit to the branch factory of the Printing Ink Div., Interchemical Corp. (IPI), and a talk on how to use color in offset lithography were features of the club's January 28 meeting. The talk was by O. C. Holland, of New York, advertising manager of IPI, who has addressed many clubs and organizations on the subject of color. The plant tour included explanations of ink manufacture and color matching.

A buffet supper and refreshments were served at the factory.

Houston Club Sees Film

A film on public relations, provided by Harris Seybold Co. was scheduled to be featured at the February meeting of the Houston Litho Club.

Highlight of the January meeting of the club, held Jan. 5 at Youngblood's Restaurant, was a film on photolithography supplied by Eastman Kodak Co. at the request of John Thomas of Lew Wenzel & Co.

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John Collison

N. Y. Re-elects Officers

Officers of the Litho Club of New York were re-elected for another one-year term by a near-record turnout at the club's annual meeting January 27 at the Building Trades Club. They are: president—Angelo Pustorino, Daniel Murphy & Co.; vice president—J. Donald Rovegno, Sweeney Lithograph Co.; secretary—Leonard Adams, Oberly & Newell Lithograph Co.; and treasurer—John Collison, Niagara Lithograph Co.

The following men were elected to the board of governors: Jacques Tisne, Schlegel Lithographing Corp.; Rene Daubenbis, Offset Engravers Associates; Daniel Ford, Peter J. Mallon, Inc.; Oscar Falconi, Daniel Murphy & Co.; Joseph Rauscher Jr., American Colortype Co.; Joshua Kempner, Parish Press; Philip Quarataro, Kindred MacLean & Co.; Maurice Welt, Crafton Graphic Co.; and Wallace Glove, Polygraphic Co. of America. Arthur Tarling, Willmann Paper Co., was elected associate board member.

The new officers and board members were installed by Jack Maguire, past president of the New York Club and also of the National Assn. of Litho Clubs.

About 150 attended the meeting which featured a motion picture and slide presentation on two new products of the Eastman Kodak Co. The speaker, L. E. Goda Jr., of the Eastman Company, discussed the Kodak Resist plate coating, and the Auto-screen Ortho film which has a "built-in" halftone screen. (An insert showing work done by this new film was included in the December issue of *ML*.)

The club's February 24 meeting is to feature a motion picture "The Great White Trackway," sponsored by Hammermill Paper Co. In March,

members of the Club of Printing Women will meet with the Litho Club for a panel discussion covering general plant problems. Walter E. Soderstrom, executive vice president, National Assn. of Photo-Lithographers, will be moderator. April plans will be announced later, while the club's May activities will be confined to the annual convention of the NALC which will be held at the Biltmore Hotel, May 7 and 8. The annual spring ladies night of the New York club will be held as part of the convention, a club spokesman said. An additional meeting, to be held in June, is planned by the club.

Clarence W. Dickinson, retired former manager of the Offset Press Div., R. Hoe & Co., was elected an honorary member of the Litho Club by unanimous action.

Phila. Plans Feb. Quiz

It will be Quiz Night again on February 22 at the Litho Club of Philadelphia. The dinner meeting, at the Poor Richard Club, carries on the annual question and answer forum started several years ago by the club. Len Starkey, who became president of the club February 1, is to be moderator of the panel discussion.

Mr. Starkey advanced to the presidency on the resignation of Walter Blattenberger, formerly in charge of the litho art department at Zabel Bros. Co., Mr. Blattenberger on February 1 joined the Southwestern Div., Western Printing & Lithographing Co., St. Louis, as reported elsewhere in this issue. The club's board of governors was to meet early in February to elect a new club vice-president to replace Mr. Starkey, and to elect a new board member.

The club's annual ladies night was scheduled for February 6 at the Benjamin Franklin Hotel. Steve Rubin-

stein of Colorcraft Lithoplate Co., was general chairman of arrangements.

The club presented Mr. Blattenberger with a clock-radio on the occasion of his resignation from an active record with the club.

Printing Week activities occupied the club during January, and no regular monthly meeting was held.

Film at Capital Club

A travel film featuring South America, sponsored by Pan American Airways, was featured at the January 26 meeting of the Washington Litho Club. The meeting, at the Continental Hotel, also included a steak dinner. About 80 members and guests attended.

The club's next meeting is to be Tuesday, February 23 at the Continental. Frank Mortimer, Government Printing Office, club president, said that the program for this meeting would be announced locally.

Five new members were announced: David A. Brown, Harry D. Merold and Vincent G. Walkendifer, all of the Government Printing Office; Joseph F. Richardson, Ralph C. Coxhead Corp.; and Robert E. Solan, Lanman Engraving Co.

The club's monthly bulletin announced the recent deaths of two men, both of whom were charter members: Walter H. York and T. Francis Curtin.

Tweddle Heads Detroit Club

Edmund B. Tweddle, Singer Mutschall Co., was elected president of the Detroit Litho Club for 1954 at recent elections. He will be assisted by Duane Gifford, Compo Art Co., vice president; John Murphy, Garrick Photo Supply, secretary and Samuel Ascher, Safran Printing Co., treasurer.

New members of the board of governors include Erwin Stoetzer, National Rubber Plate Co.; Joseph Masura, Masura Offset; Kenneth Burt, National Rubber; Arthur Simons, Graphic Arts Process and Phillip Siegenthaler, Tri-Litho Plate.

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LITHO CLUB GUIDE

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Dick G. Krekel, Secy.
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Milwaukee 16, Wis.

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Leonard E. Adams
40-42 Hartley Place
Fairlawn, N. J.
Meets 4th Wednesday, Building Trades Club

ONTARIO

Robert Elgie, Secy.
26 Lombard St., Toronto, Ont.

PHILADELPHIA

Joseph Winterburg, Secy.
622 Race Street, Philadelphia 6.
Meets 4th Monday, Poor Richard Club.

QUEBEC

Dave Riddell, president
Montreal Litho. Co., Montreal, Canada.

ROCHESTER

Frank H. Spoto
626 Westchester Ave., Rochester 9, N. Y.

ST. LOUIS

Neil McGowan, Secy.
Von Hoffmann Press, Inc.
105 S. 9th St.

TWIN CITY

Ed. Sorenson, Secy.
Holden Printing Co.
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Dave Fell, Secy.
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NAT'L ASS'N OF LITHO CLUBS

Sol D'Alessandro, Exec. Secy.
2729 Prospect Ave., Cleveland 15, Ohio.

Milw. Hears Paper Man

A paper manufacturer's viewpoint regarding lithography was to be the general subject of the January 26 meeting of the Milwaukee Litho Club, according to the club's advance announcements. The speaker was Lawrence E. Kussow, sales manager of the midwest district of Kimberly-Clark Corp. He was to be assisted by Bert Selber of the same company. Questions and discussions of paper problems were scheduled. The club holds meetings at Moser's Cafe, 3140 W. Lisbon Ave.

The club also participated in a Printing Week dinner at the Elks' Club, January 21, at which the speaker was Walter J. Fuller, chairman of the board of Curtis Publishing Co., Philadelphia.

Five new members were inducted into club membership: Edward A. Gmoser, Kiesow Litho Studios; Charles W. Smelser, Gugler Lithographic Co.; Robert G. Hylleburg, Offset Press, Inc.; Robert Christensen, Western Printing & Lithographing Co.; and Ronald L. Anderson, Minnesota Mining & Mfg. Co.

Chicago Club Elects Graham

The Chicago Litho Club, at its annual business meeting, Jan. 28, elected Ralph Graham, plant manager of Continental Can Co.'s Grand Avenue manufacturing plant in that city, to head the organization as president for 1954.

Rae H. Goss of Inland Lithograph Co. was chosen to fill the first vice president's post vacated by Mr. Graham, its incumbent for the past year. Willis B. Perry, of Offset Plate-making Service, Inc., is the new second vice president. James M. Ludford of Chicago Litho Plate Graining Co. was re-elected secretary and W. Stuart Grau of Miehle Printing Press & Mfg. Co., was continued as treasurer.

The new president, Mr. Graham, succeeds Elton Baker, research director for John Dickinson Schneider, who became a member of the board.

Mr. Graham has been in the metal decorating field for 25 years, his first employer being the J. L. Clark Mfg. Co., Rockford, Ill. Thirteen years

ago, in 1941, he entered the employ of Continental Can Co. in Chicago where, among his responsibilities as plant manager, he supervises all art, photography, color proofing and plate making for the metal decorating operations.

Principal speaker on the Club's education program was Russell Waddell, chemical control engineer with Harris Seybold Co. Discussing "New Litho Plate Developments," Mr. Waddell reviewed objectively the entire field of platemaking with comparisons of the various types of plates.

Joe McConnaughy, newly ap-

pointed western district manager for Harris Seybold Co., was introduced and spoke briefly, then signed an application for membership in the club. Final act of the retiring president, Elton Baker, was to induct six new members into the club ranks. *Modern Lithography's* January story on the Chicago club's 25th anniversary, Mr. Baker said, has inspired a desire to know more about the club's history. It is now planned, he said, to dig into the past and get the complete history of the organization together for a possible historical booklet in the future.

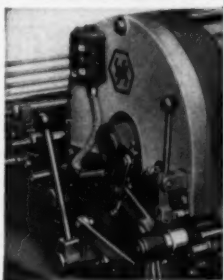
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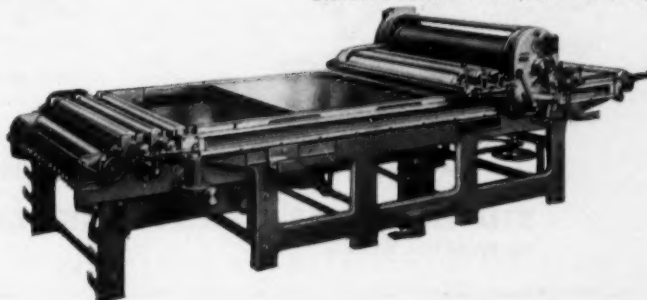
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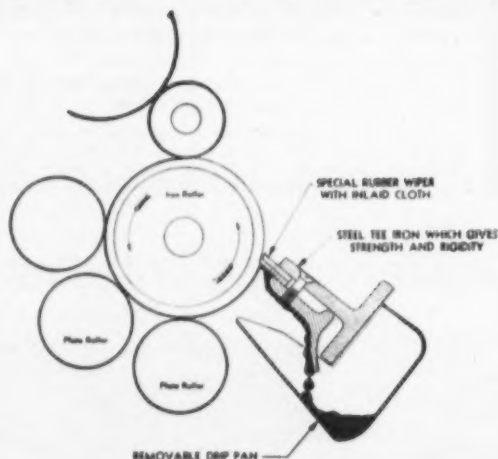
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J. B. Smith Advanced



John B. Smith Jr., (above) has been elected to the position of vice-president of Eastern Printing Corp. and Photo-Reproduction Corp., it was announced in January. "J. B." has served over 30 years with these two firms.

He served as president of the New York Photo-Lithographers Association in 1937 and again for the years 1941-1943. He also is a former director of the National Association of Photo-Lithographers, and was for several terms a director of the Metropolitan Lithographers Association.

W. Blattenberger Joins WP&L

Walter Blattenberger, president of the Litho Club of Philadelphia, and formerly in charge of the litho department at Zabel Bros. Co., Philadelphia, joined Western Printing & Lithographing Co., Southwestern Div., St. Louis, on February 1. Mr. Blattenberger, who also is treasurer of the National Assn. of Litho Clubs, has been with the Philadelphia lithographing concern for the past three years.

Employees of the litho art department and their wives, totaling 65 in all, gave Mr. Blattenberger a surprise dinner January 23. The Litho Club also presented him with a clock-radio.

Len Starkey, Edward Stern & Co., who has been vice president of the Litho Club, became president, Feb. 1.

Mr. Blattenberger is a son of Raymond Blattenberger, U. S. Public Printer.

Schultz Adds Big Web

Schultz Lithographing Co., Chicago, expected to begin operation early this month of a new ATF-Webendorfer web perfecting press, erection of which was started in the plant at 1240 Morse Ave. late in January. The new press, of the latest

model, capable of printing combinations of eight colors on both sides of the web, is the first of its kind and size in Chicago. H. J. Schultz, proprietor, said, although an earlier model of the same make has been in use elsewhere in Chicago for some time. It had at first been planned to acquire another building to house this new addition to facilities, Mr. Schultz said, but after investigating cost of constructing a new building or remodeling an old one, that plan was deferred until prices come down. Space meanwhile was arranged for

the new press in the Rogers Park building where the company has operated for some years.

Going To the Fair

A Memphis Printing company has found that exhibits at fairs really pay off. Brunner Printing Co., Inc., already is preparing to exhibit its presses next August at the Mid-South Fair, because of good results at the fair last year.

Francis J. Brunner, president, said the company attracted a lot of attention at the 1953 Fair.

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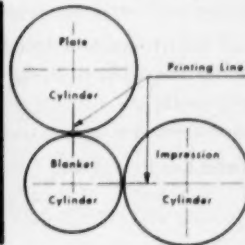
True Rolling Offers the lithographer several concrete advantages:

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TRUE ROLLING IN A NUT SHELL . . . For precision Offset performance the surface of the plate, the blanket and the paper on the impression cylinder at the line of impression must move at the same speed. With all cylinders moving at exactly the same speed at the printing line, a True Rolling contact exists between plate, blanket and paper.

Miehle research proved that, in order to compensate for the blanket stretch caused by the squeeze required to transfer ink from the plate to the blanket and then to the paper, the blanket cylinder diameter should be less than that of plate and impression cylinders. Calculations and experiments determined the cylinder diameters that will produce True Rolling conditions and which are built into all Miehle Offsets.

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The Christensen operates at almost double the speed of other varnishers.

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Oven is shorter, saving space. There are no flames in the oven, hot air being supplied by heaters outside of it.

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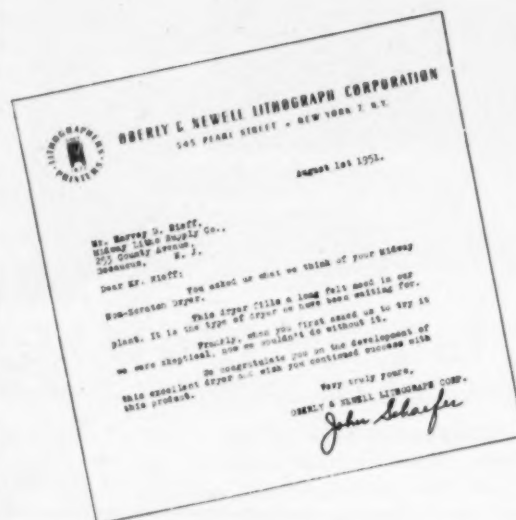
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- Will not dry on press, either running or standing, thus eliminating costly washups.
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Balt. Club Hears Dr. Cramer

Dr. George Cramer, research director of Sinclair & Valentine Co., New York, addressed the Litho Club of Baltimore January 18 at the Stafford Hotel, discussing lithographic inks and related subjects. Dr. Cramer also presented a motion picture "Graphic Arts Marches On" to the audience of some 50 members and guests.

The club's February 15 meeting was to be built around a visit to the Mergenthaler Technical Vocational High School. Special interest centered around the school's training program for offset lithography. A dinner in a nearby restaurant was planned.

The club's March 15 meeting at the Stafford Hotel, is to feature the operations of the Lord Baltimore Press, with the firm's president, Hugo Dalsheimer, as one of the speakers. History, operations, type of work, and other aspects of the plant which are of general interest, are to be included. Also, an audio-visual presentation of the Lithographic Technical Foundation, is planned, according to Nathaniel Gamse, of Gamse Lithographing Co., club president.

St. Louis Hears Schmidt

The St. Louis Litho Club planned a meeting February 4 at the York Hotel to hear Paul F. Schmidt, president of the Harold M. Pitman Co., Chicago. His subject was "Doing Today and Planning for Tomorrow."

Mr. Schmidt, a graduate of Lawrence College in 1939, joined the Pitman Co. that year, and rose to the presidency after work in manufacturing, and lithographic sales. He served in the navy during World War II. An attendance of 75 to 100 members and guests was expected.

The club's January meeting was a closed session for the transaction of business. Another closed meeting is planned for the first Thursday in March, the club announced.

Conn. Reviews Developments

New developments in lithography, with special emphasis on plates, was to be the subject of the February 5

meeting of the Connecticut Valley Litho Club. The speaker was to be Harry ("Doc") Mueller of Litho Chemical & Supply Co., Lynbrook, N. Y.

Another feature of the meeting, at the Bond Hotel, was to be election and installation of officers. John Maguire, New York, past president of the National Assn. of Litho Clubs, was to be on hand to install the new officials. Robert B. Ervin, Muirson Label Co., has been president of the Connecticut Valley Litho Club for the past year.

The club also has announced plans for its next regular meeting April 2. The speaker at that time will be James Haydock, Forbes Lithograph Mfg. Co., Boston.

Garrick Joins McCutcheon

Morris Garrick has joined McCutcheon Bros. & Quality, Inc., Philadelphia, as chief chemist in charge of formulation and research development. He formerly served with J. M. Huber Co., in ink development.

Square Club Elects

New officers for 1954 were installed last month by Graphic Arts Square Club, New York, with Arthur Olney named president. Mr. Olney, Harris-Seybold Co., formerly was first vice president. He succeeds J. Irving Peck Jr., James I. Peck Co.

Other officers are Edward T. Rude, Kohl & Madden Printing Ink Co., first-vice president; William Stern, second vice president; Paul Basile, Compton & Stern, treasurer, and Edward P. Dahlinger, secretary.

Alanson Enos Jr. Dies

The president of Stearns & Beale, color lithographing company, 150 Varick St., New York City, Alanson Trask Enos Jr., died Jan. 23 at the Columbia-Presbyterian Medical Center. He was 66. A native New Yorker, Mr. Enos had lived since 1919 in Greenwich, Conn.

A graduate of Harvard University, Mr. Enos served during World War I as vice-chairman of the War Trades Board. He was a member of the board of directors of the Metropolitan Lithographers Association.

Stearns & Beale, one of the oldest color lithographing firms in the country, was founded in 1857.

Chicago Co. Moves

Worthy Litho Co., Chicago, moved on Dec. 15 to 212 W. Hubbard St., from its former location at 2611 Indiana Ave., where operations had been conducted since organization of the firm two years ago. The new site, with 6,500 sq. ft. of space will permit expansion of facilities. Milton H. Kreins, one of the proprietors, stated. First of the new equipment to go in is a Miehle 22 x 34" offset press, while a second of the same model will be added shortly, Mr. Kreins said.

Worthy Litho Co. was organized by Mr. Kreins and his partner, Sidney Schultz, to take over the private offset plant of a mail service firm which, after two years had found its operation unprofitable for their purposes.

2nd Semester Opens

The Chicago Lithographic Institute was to start the second semester of the current school year Feb. 8, with a full enrollment in all classes, Albert N. Brown, general manager, reports. Only one new subject, a course in estimating, was added to the curriculum for this semester, with Rae Goss of Inland Lithograph Co. as instructor. Newly revised editions of the L.T.F. series of textbooks have been incorporated in the courses, Mr. Brown said, and instructors' manuals and other material have been re-written to bring them up-to-date. Cooperating in this revision work were the school's instructional staff, manufacturers of equipment, and the L.T.F. Another new feature of the instructional material will be colored slides for use in class room work.

Boston Holds Party

The Boston Litho Club was to hold its annual Valentine's Day Party in Hotel Kenmore, Boston, Feb. 13. A reception was scheduled before the dinner. The program included souvenirs for the ladies, door prizes, corsages, entertainment, and dancing.

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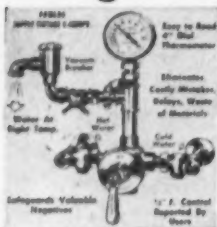
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OFFSET PLATE TROUGH

Sturdy gage, High-lustre satin finish Stainless Steel. Complete with stand, perforated sprayspice—full length of trough. 1 1/2" stainless steel standpipe. Steel storage shelf with front and back stop. Lattice drain rack of kiln dried wood, smooth rounded corners.



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Einson-Freeman Makes Mobiles

Exclusive U. S. rights to manufacture a novel English mobile for point-of-sale advertising purposes have been granted to Einson-Freeman, Long Island City, N. Y. lithographer. Albert Hailpam, Einson-Freeman president, (above) shows how the dealer punches out the individual pieces of a Hovis Bread "Rotair" mobile in a few seconds.

The company claims the device has received favorable comments from manufacturers whose products range from candy, drugs and food to television and tobacco. The mobile is suspended in air by transparent nylon thread which links individual units. Normal air currents in a store move it gently. Company says the various designs, showing food passing in and out of packages, smokers reaching for cigarettes, etc., are eye-catching and stimulate sales.

The "Rotair" comes pre-strung on full color die cut cards. Dealer merely punches out the piece and hangs it.

Chicago Craftsmen Add Men

Bernard W. Menke, offset supervisor in the field service office of the Government Printing Office in Chicago was made a member of the Chicago Club of Printing House Craftsmen at its Jan. 19 meeting. Among others in the class of new members were James P. McConnell, plant superintendent of the G.P.O. in Chicago; G. W. Bassett, sales research manager, Miehle Printing Press & Mfg. Co., and Harry James Deck, assistant manager of the Miehle Co.

This month's meeting on Feb. 16, was to be the Chicago Club's annual Offset Night while the March 16 meeting will be Ink Night, it was announced. March 6 was also set as the date of the International Club's first offset workshop in Chicago. Tom Mahoney, vice president of the Re-

gensteiner Corp., will be in charge, assisted by Gradie Oakes, head of Process Color Plate Co.

3M Advances Norwich

Appointment of Leo L. Norwich as sales manager for printing products to distributor trades was announced recently by Minnesota Mining & Manufacturing Co., St. Paul, Minn. Mr. Norwich will be interested primarily in the company's dealer program for lithographic plates and its jobber program for tympan blankets.

He joined 3M as a sales correspondent in 1944 and was advanced to salesman in 1947. Immediately prior to his appointment he had been eastern regional sales supervisor for the printing products division with headquarters in New York. He will now be located in St. Paul.

Adds Machine in Poughkeepsie

Western Printing & Lithographing Co., Poughkeepsie, N. Y., recently added a Rosback Pony perforator to its facilities.

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Three New LTF Books

PHOTO-COMPOSING, Charles W. Latham. Lithographic Technical Foundation, Inc. 84 pp. \$1.20 members plus \$.18 handling and shipping charges. \$4.00 non-members plus \$.18 handling and shipping charges.

The author of this Skilled Craft Text has worked closely with manufacturers and leaders in this field. Few lithographers will realize that photo-composing is nearly fifty years old. Here for the first time is a book entirely devoted to this process. As the preface says, any good plate-maker who is mechanically adept and has the desire, can learn to operate a photo-composing machine. This book has been written to fill a plate-maker's need. Mr. Latham has been very thoughtful in preparing his subject in that the section on "Operator's Procedure" is broken down for both the Lanston and Rutherford machines. Anyone concerned with lithography today must concern themselves with photo-composing. Here is a book that seems to have all the answers about this process.

HOW TO MAKE and RUN BETTER ZINC SURFACE PLATES, Jack W. White. Compiled from the research of Robert F. Reed, Paul W. Dorst, Michael H. Bruno, Paul J. Hartsuch, George W. Jorgensen and Edward J. Martin. Lithographic Technical Foundation, Inc. 184 pp. \$1.80 members plus \$.18 handling and shipping charges. \$6.00 non-member plus \$.40 handling and shipping charges.

This publication, #805, the fifth in the series on platemaking published by LTF, has now been issued to members, and is available to craftsmen everywhere. The material is well organized, and its typographical presentation is good. It is a highly readable and fully illustrated bulletin.

In the "history" of this bulletin, the author tells of the years of experimentation, both at the laboratory and in plants, that led to its publication. It will tell you how to make albumin plates that print as well as good deep-etch plates for most of the lithographic work done today. The method herein described is based on the work of many men whose main interests have been the improvement of the lithographic process.

The new procedure for making surface plates evolved by the Foundation's research laboratory gives detailed instruction, under various sections, for the many steps in this method of making plates.

There are sections devoted to how to handle and run a well-made plate on press, a well-defined section for trouble shooting with surface plates, and additional information on coating sensitivity. This volume contains formulas and complete instructions for making the solutions for surface plates. The final section covers additional techniques and general information. An extensive index is included.

THE SCIENCE OF PHYSICS in LITHOGRAPHY, Erwin Jaffe. Lithographic Technical Foundation, Inc. 144 pp. \$3.60 members plus \$.18 handling and shipping charges. \$12.00 non-members plus \$.55 handling and shipping charges.

This new Special Text, #402, deals with a difficult subject, but one which is vitally important in the field

of lithography. The subject has now been treated for the first time in language of the craftsman. For the lithographer who really wants to know a bit more than just "how" to do his job, *The Science of Physics for Lithographers* is basic.

The many applications of physics in our industry are explained with the physicist's language held to a minimum, but where the scientist's terms are used, full explanation is always made. Profusely illustrated with photographs, sketches, tables and charts, a feature is a four-color chapter heading on the subject of Light and Color.—R.P.L.

Offers Copy Fitter

Henry D. Gold, publisher of the *Rapid Paper Cost Finder*, has just announced the publication of "The Rapid Copy Fitter." It is described as a fast and accurate type casting system.

The plastic-bound booklet combines a series of easily read charts and a type gauge, with a number of practical problems and their solutions. It shows at a glance the correct size and face to fit the allotted space, and also many alternate type faces for quick and easy comparison. A total of 355 most widely used type faces, in lower case and caps, are listed and classified alphabetically together with their foundries.

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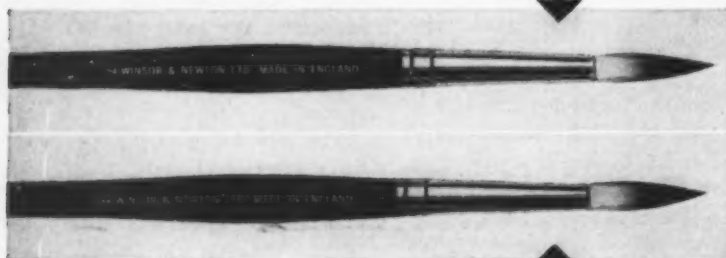
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902 BROADWAY, NEW YORK 10, N. Y.

New Kleen-Stik Product

Lithographers can offer an additional service to their customers by utilizing a new tape designed by Kleen-Stik Products, Inc., the company states. The product, called "D" Transfer Tape, can be applied to window streamers, posters or other point-of-purchase materials as well as to business forms of many kinds, by any lithographer, silk screener or other display producer.

The new Kleen-Stik tape supplements the company's machine application of moistureless, pressure-sensitive adhesive in strips or spots, it states. When "D" Transfer Tape is applied directly to paper stocks, the adhesive transfers from tape to paper almost immediately on most coated stocks. Tape itself remains in place, Kleen-Stik says, as a protective covering, and is not removed until the adhesive is to be exposed for final application.

Setting Type in Circles

A new time-saving technique for setting type in perfect circles and curves with the aid of pressure-sensitive tape in minutes rather than hours, is shown in a new 16-page illustrated booklet for the printing industry.

The new booklet—reporting on the findings of Bob Reader, Pittsburgh advertising-production man—is being made available as a service to the printing trade by Minnesota Mining and Manufacturing Co., 900 Fauquier St., St. Paul, Minn. It is available on request.

Divided into two sections, the booklet shows reader's step-by-step methods for using type and strips of "Scotch" brand cellophane and double-coated tissue tape to, 1. make a type circle and, 2. make a curve.

New 60-Line Contact Screens

New, 60-line, Kodak magenta contact screens designed to meet the needs of screen process printers and photolithographers have just been announced by the Eastman Kodak Company.

The new screens, the company believes, will be particularly helpful in the preparation of halftone positives for printing with Kodak Ektagraph Film. They are also expected

to be valuable in the making of coarse screen negatives for photolithography.

The screens cover film sizes from 8 x 10" to 22 x 23". The new screens will be available through all Kodak graphic arts dealers.

New Blanket Restorer

A new blanket restorer which the company claims will save labor and loss of press time has been marketed by Lewis Arts, 61 Clara St., Brooklyn 18, N. Y.

Company says the wipe on and wipe off method of removing glaze from blankets without hard rubbing is a time saver. In addition, it states, blankets treated with the material don't get tacky, retain their original condition longer and perform better. Additional information is available from Lewis Arts.

Gummed Stock for Metals

Paper Manufacturers Co., Phila., Pa., has announced a new gummed paper designed to stick to non-porous surfaces. It is called Perfection #360 Metal-Stik, and is said to stick to polyethylene, polystyrene, metals, and some lacquers. It was originally developed for sticking to Silicone-coated glass. It is furnished in supercalendered white, sheet size 20 x 25".

Sales Aids Show Planned

A sales aids show, designed to be a market-place of new techniques in selling, has been scheduled by the Advertising Trades Institute, Inc., to be held May 10-12 in the Biltmore Hotel, New York. Thomas B. Noble, chairman of ATI and director of the show, said more than 7000 visitors are expected to attend.

"Imprint" for Decals

American Decalcomania Co., Chicago, has introduced a new type decal intended for window sign use, which, in effect, permits the user to "imprint" a message or note pertaining to his specific business. The sign is described as actually two separate decals, one of which carries a general design and includes a panel where the special local user's message on the second decal, is inserted.

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PERFECTION
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you'll get

the
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EVERY TIME**

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NEW! The PERFECTION G-PAC—100 sheets of top quality Gummed Paper, mill-wrapped in waterproof paper... 2 chipboards. Ask a PERFECTION Distributor.



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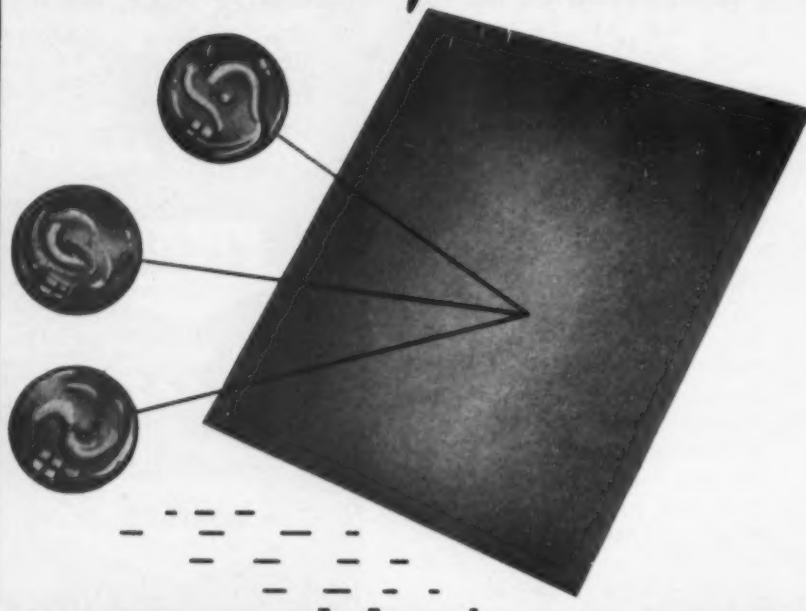
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is accepted by plate-makers throughout the country for the most exacting type of litho plate graining. AGSCO Silica is used to produce the highest quality finish by eliminating all synthetic abrasive particles imbedded in the metal.

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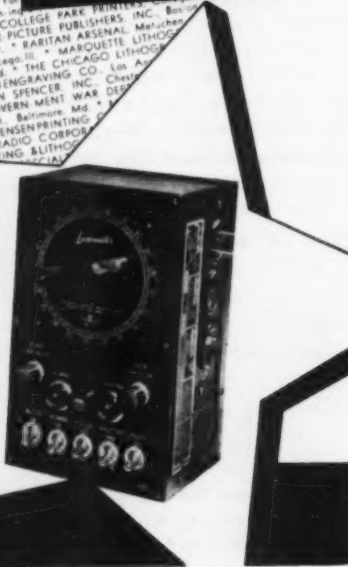
A Galaxy of Luxometer Users!

The LUXOMETER's exclusive and patented features make it the only light integrating instrument to win the acclaim of Graphic Arts authorities all over the world. Its proven superiority is attested by the great number of users who have reordered... many plants with a LUXOMETER on each camera, photo-composing machine and printing frame.

A PARTIAL LIST

- of those who are now using FIVE or more LUXOMETERS:
- Alco-Gravure, Hoboken, N. J. 8
 - Art Gravure Corp. of Ohio, Cleveland, Ohio 8
 - Brett Lithographing Co., L. I., N. Y. 6
 - Consolidated Lithographing Co., N. Y. 12
 - Defense Printing Services, Washington, D. C. 13
 - Graphic Arts, Inc., Phila., Pa. 10
 - Joseph Hoover & Sons Co., Phila., Pa. 10
 - Intaglio Service Corp., N. Y. 5
 - Montreal Standard Pub. Co., Canada 7
 - Rosenstein Corp., Chicago, Ill. 5
 - Repro Art Co., Los Angeles, Calif. 5
 - Stecher Traving, San Francisco, Calif. 5
 - Strobridge Lithographing Co., Cincinnati, Ohio 8
 - U. S. Govt. Printing Office, Washington, D. C. 7
 - Western Printing & Litho, Racine, Wis. 41

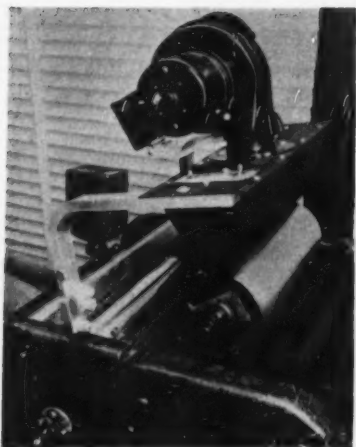
The LUXOMETER is an instrument for integrating light. It automatically shortens or lengthens the period of exposure to compensate for fluctuating light intensities.



See your dealer or write for free trial offer on lease and purchase plan.

ELECTRONIC MECHANICAL PRODUCTS CO.

14-15-17 North Virginia Ave. (EMPCO) Atlantic City, N. J., U. S. A.



Device Aids Water Control

Interstate Offset Products Co., M & M Building, Houston, Texas, has just announced the Aqua-Trol, a mechanical and electrical device to speed and control evaporation from plate and ink roller surfaces. It incorporates balanced air volume, air baffling, and air temperature. Ink color is brought up with fewer waste sheets, it is claimed. Water-free ink dries faster on the paper, thereby allowing back-up and trimming to be done much sooner, the company says. Plate images last longer, also, the announcement states.

B&B Offers New Service

A new service, providing photographic color composites made from various pieces of original copy, is being offered by Bebell & Bebell Color Laboratories, 2531 Church Ave., Brooklyn.

Bebell states it will strip the various components together onto one master transparency, combining color transparencies or art work, of any size or density. Company says it will scale art work or transparencies up or down, correct color and mask the whole thing to provide a harmonious layout.

New pH Meter

An easy-to-use line-operated pH meter is described in a bulletin just prepared by Photovolt Corp., 95 Madison Ave., New York 16. By taking advantage of the most recent advances in electronic tubes and circuits, the company claims, it has made the product without sacrificing either accuracy or stability.

Bulletin states that the pH meter bridges the gap between the "complicated, difficult-to-service electronic pH meters of earlier design and vis-

ual color comparison tests of limited accuracy."

PRINTING WEEK

(Continued from Page 51)

Presenting Ben Franklin statuettes to the honored guests at the banquet was Norman T. Power, Stecher-Traung Lithograph Co., and Lou Hinz, president of the San Francisco Craftsmen.

CLEVELAND—Printing Week observance this year excelled in space and time in newspapers, radio and television. The *Plain Dealer* had a section in its Sunday edition, the *Press* came out with a special section on Wednesday and there were 11 radio and television programs which devoted all or part of their time to graphic arts. These ranged from exhibits and interviews with industry leaders, to a historical review of the growth of the Harris-Seybold Co. Other events included luncheons and dinners of the Sales Executives Club, Advertising Club, Printing Industry of Cleveland, and an all-industry banquet with Louis Bromfield as speaker. The Public Library featured displays of processes and specimens, and there were various awards and contests.

MEMPHIS—Installation of local officers of the Printing House Craftsmen was in the spotlight as Printing Week was celebrated. Chosen to lead the group at a banquet meeting were Austin Hennon, president; William Wilson; first vice president; Amos Black, second vice president and C. C. Ritter, secretary-treasurer.

KNOXVILLE—The display windows of the Knoxville Utilities Board were utilized to display many types of letterpress and lithographic printing during Printing Week. Exhibit was sponsored by the Knoxville Graphic Arts Association.

CINCINNATI—A "Ben Franklin Dinner," given on the roof garden of the Gibson Hotel, capped Printing Week here. Raymond Blattenberger, U. S. Printer, was principal speaker.

Unveiled at the dinner was the William Maxwell bronze plaque honoring the first printer in the state.

NASHVILLE — An exhibition of printing, including many lithographic specimens, was the focal point of Printing Week in this city. One of the oldest and an increasingly important offset center, the city did a volume of printing valued at \$23,000,000, in 1953.

WORCESTER COUNTY, MASS.

—An essay contest in three high schools, posters, newspapers and radio publicity were emphasized during Printing Week. Worcester Club members prepared an exhibit displayed in the window of the Industrial City Bank. Fetaured speaker at the PW banquet was Hector McDonald. The banquet was planned by Charles E. Troy, president of the Worcester Club, aided by Edward Gravel.

PORTLAND, ORE. — A 48-page booklet, "Early Master Printers," was published and distributed by PW Chairman Paul O. Giesey during the week-long celebration. It included a collection of xylographs with biographies of graphic arts innovators. Alfred Powers was guest speaker at a banquet concluding the observance.

PITTSBURGH—"Godsons of Free Enterprise" was the title of a speech delivered by C. R. Jones, vice president of Laurance Press, Cedar Rapids, Ia., at the annual industry dinner in observance of Printing Week. William Joel headed the PW committee, which included representatives from the Printing Industry of Pittsburgh, Inc. and Craftsmen's Club.

ST. LOUIS—The regular Wednesday evening meeting of the St. Louis Club of Printing House Craftsmen was devoted to celebration of Printing Week. Robert Wunsch, Bechtold Co. was chairman. He introduced the new AP&L president, Raymond Kutterer and the guest speaker, Munro Roberts, personnel director of the St. Louis *Post Dispatch*. Craftsmen Club members, under Robert Heinrich, president, distributed posters during the week.★★

New Cameras Announced

Robertson Photo-mechanix, Inc., 3067 Elston Ave., Chicago, has announced a new series of all metal overhead monorail cameras, designated as the "Tri-Color" Series II.

The Chicago company stated the new series is built as standard in 31" and 41" film sizes, with larger sizes available on special order. The new series is heavier and more rugged than older models because of several improvements, according to the company. Screen elimination and

separation mechanisms have been redesigned to insure positive action and safety of operation as well as greater speed, Robertson announced.

Free Multilith Course

A free course in Multilith operation is being offered by Darling-Payne Corp., Tom Darling, president of the company, announced. Classes will be held Wednesday and Friday evenings from 6-8 at the 82 Beekman St., offices in New York.

Course will run three weeks, with

as many classes as necessary to handle the enrollment. Applications should be made by mail to Mr. Darling or Henry Gonet at the New York address.

New Ink Saver

A new substance which chemically prevents skin formation in printing inks and silk screen enamels has been developed by Ames Laboratories, Inc., of 132 Water St., South Norwalk, Conn. The company says the material, called Ink-Sav, acts as an anti-skinning agent both in partially filled cans of ink in storage and on ink remaining in the press fountain.

Ink-Sav chemically combines with driers, will not interfere with color or drying rate of any ink and will not harm rubber or composition rollers, Ames states.

New Type Calculator

Printers and production men can determine character count, per line, at any given pica measure for many popular type faces, by using a new type calculator designed by William T. Geller, production manager of Hanly, Hicks & Montgomery advertising agency.

The agency says the calculator employs a simple dial for determining any answer to copy-fitting problems. Kit includes a folder showing type faces in their range of text face sizes. For further information, write Casgel Service, 493 Foch Boulevard, Mineola, N. Y.

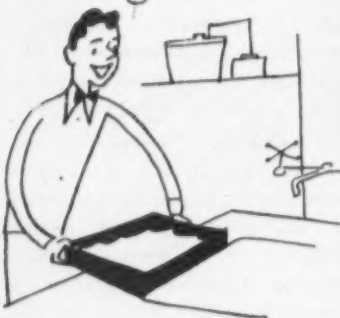
Headline Book Issued

A new handbook on publication layout called "Headline Design" has been published by the Butler Typo Design Research Center. The book, second in a series on layout, contains 96 pages, with many illustrations. It is available through the Center at \$3.75, postpaid.

Author of "Headline Design" is Kenneth B. Butler, who teaches magazine layout and production at Northwestern University's Medill School of Journalism. He is president of Wayside Press, Printers of more than 30 national publications.

LITHOLINE-T

LITHOLINE-T is a translucent paper coated with an extremely vigorous and highly orthochromatic emulsion. It is intended for the reproduction of line drawings, tracings, plans etc., by camera work projection or contact.



LITHOLINE-T is used in the graphic industry for the making of line and screen negatives with extremely dense blacks and sharply defined clear whites.

The paper has an anti-halo backing which helps greatly in obtaining a perfect rendition of the minutest details. The water-proof base ensures a very fast washing and drying.

DARKROOM LIGHTING

Standard Red Light

DEVELOPING

All standard formulas produce splendid results in approximately 2½-3 minutes at 68°F.

STOP BATH

After developing is complete, remove the paper promptly from the developer and wash it briefly, or better still, immerse it in a standard 28% acetic acid bath with water.

FIXING

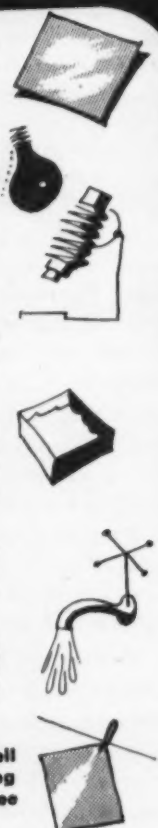
The use of an acid fixing bath is required—any standard formula.

WASHING

After the paper is fixed, wash it for about 10 minutes in running water.

DRYING

Squeeze the paper well and clip it up in a drying cupboard or a dustfree place.



For further details write to:

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Chicago Institute Honors Five

Five Chicago lithographic leaders who were associated with the launching of the Chicago Lithographic Institute in 1946 were to be honored by the school's present board of directors at a dinner in the Lake Shore Club Feb. 10. Listed to receive handlettered scrolls expressing the Institute's recognition of their services were B. E. Callahan, of Inland Lithograph Co., first president of the school's board; C. A. Nordberg of Chicago Offset Printing Co., who retired as president last year; Leonard Knopf of the Meyercord Co.; Fred Zeitz, now with Roberts & Porter, who was president of Local 4, A.L.A. in 1946, and George Canary, now president of Local 4, who was union secretary then and later served several terms on the Institute's board.

Large portrait photographs of the five were to be unveiled at the dinner and later to be hung in the Institute's Glessner House offices. James Armitage of Inland Press, now president of the board, presided at the presentation ceremony. Some twoscore persons attended the dinner which is given annually by the board as a testimonial honoring the Institute's instructional staff.

It was predicted in advance, however, that the party would become a sort of "old settlers reunion," replete with reminiscences of the time when two of the five men honored happened to meet and start a discussion of the Chicago lithographing industry's great need for a training school. This idea was developed into the Institute.

Best Posters Being Chosen

The Art Directors Club of Chicago last month issued a call for entries in its 22nd exhibition of outdoor art, limited to 24-sheet posters or painted bulletins produced during 1953. Lithographers, as well as advertising agencies, art directors, artists or bill posting concerns, are eligible to submit designs. Entries closed Feb. 13 and judging was to start immediately to select the grand prize winners for "Best in the Show" and the top posters in sixteen different classifica-

tions. Winners will be announced at a luncheon to be held March 24 at the Sheraton Hotel, Chicago. As customary, Outdoor Advertising, Inc., will later publish its Poster Annual for 1953, which will include all prize winners and others selected from the show for inclusion as the "100 Best", together with still others selected as having merit in copy, art or design.

Form Bronze Firm

A new corporation has been formed as successor to Baer Brothers Bronze Powder Div., the company announced in December. The new name is Baer Brothers Bronze Powder Co., Inc., 425 Fairfield Ave., Stamford, Conn. C. L. Johnson is president, and Peter A. Froscio, vice president. All of the manufacturing staff of the division has been retained, and new equipment is being installed.

ACADEMIC LITHO

(Continued from Page 46)

would be impossible with orthodox printing practice, and the resultant economies. The latter is especially important, because it has made possible the production of yearbooks for small schools with a typical run of only 100 copies.

Similar production methods are utilizable in production of other types of work, especially illustrated books. By having the editor or publisher handle the typing of captions, this reduces production cost to a very modest figure.

Seasonal factors enter this business to a considerable extent. The critical date is the beginning of September, with the requirement that new school books be delivered in time for the opening of the fall term. This always means a peak load in the summer, which ties in neatly with the earlier peak of yearbook work. At the same time, most academic authors tend to do the bulk of their own book preparation work in the summer, and are likely to expect delivery in time for fall. Normal working time for orders not requiring composition in the plant nor special binding is three weeks.

To balance the peak load, a special



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Arts Need From The
Largest To The Smallest
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The big powerful, motor-driven, completely automatic Arc Lamp which has become the first choice of the larger lithographers. It develops 4000 ft. candles of light intensity at 3 ft. . . . is guaranteed to give light value of 7000 degrees Kelvin . . . draws only 15 amps from the power line assuring short and economical exposures.

the NEW N-75 & N-50



The new N-75 and N-50, both motor-driven and completely automatic, same as the N-110. The N-75 develops 3000 ft. candles of light intensity and the N-50 develops 1500 ft. candles at 3 ft. Both have a light value of 7000 degrees Kelvin. The N-75 draws but 12 amps from the power line and the N-50 draws but 7 amps. Both lamps are very economical and efficient.

and the N-20



The new portable N-20, weighs only 28 pounds . . . It will "burn-in" presensitized plates up to 17 x 22 in less than two minutes. It draws but 8 amps from the line and sells for less than one hundred dollars.

Write today for bulletins on our complete line and see your regular dealer to arrange for a 30-day free trial offer.



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Preserves and Lengthens Life of Blankets.**

*After Years of Research We Have
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- ★ Removes glaze from blankets in minutes. Cuts down non-productive time on your press.
- ★ No hard rubbing required. Just wipe on BLANKET RESTORER, wipe off glaze.
- ★ Non-toxic. *Will not harm blankets.
- ★ Blankets treated with BLANKET RESTORER do not get tacky, give a better job at all times.
- ★ Economical. Blankets retain their original condition over a longer period of time after using BLANKET RESTORER. Constant use of BLANKET RESTORER preserves and lengthens life of blankets. You buy less blankets. You save money.

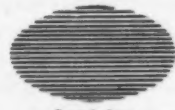
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Straight Line



Homespun

WHALE SAFETY PAPER CO. WAUPACA, WISCONSIN

discount is offered to academic authors for work if the job is in the plant early in the summer, for September delivery.

Incidental sales promotion is handled through the media already discussed, and a series of special brochures issued at intervals. Typical is a case history, illustrated, "Your Manuscript into Print." Another is a 114-page catalog, "Titles of Interest" listing some titles printed by Edwards within the preceding three years. This is reissued at intervals, and serves as a general catalog of work done. It is divided into 35 subject classifications, and helps in the distribution of the published works. It is to be noted that the firm does not handle physical distribution of the edition, delivering the books to the author or his designated agent, perhaps a college bookstore. (A separate catalog is issued covering all titles J. W. Edwards publishes.)

The total number of books printed in a year is now about 2,000, a major part of the million dollar business. This is an accomplishment possible only through the unique combination of mechanical ingenuity, analytical breakdown of each step—resulting in maximum flexibility in choice of method, and the economy of production through systematized procedure and volume output.★★

PHOTO-COMPOSING

(Continued from Page 39)

The plate that has many images, all different, is called a "combination" plate. Some plates are a combination of both, such as those found in label shops. A plate may have four labels for one customer, six for another, two for another, etc. Thus when this plate is put on the press for a twenty-five thousand run, one customer will get 100,000 labels, another 150,000 and another 50,000. Any of these plates, in fact most of them, are now made on the photo-composing machines where close fitting color work is involved.

"Stripping" is a term that is applied to another method of making plates with many images on them.

While this method is by no means limited to black and white combination plates, this is, however, its greatest field. The art of stripping got its name in the beginning from the fact that the emulsions of the individual negatives were "stripped" from their glass supports and placed in combination on a large glass. This produced a negative as large as the press plate and required one exposure in a vacuum frame. Multi-color work has been, and is being done, by this method. It requires a great deal of skill to maintain fit between colors. It can be seen that on certain types of "combination" plates this method would be of value, as each job requires its own set of negatives. On multiple plates, however, it is not popular as it would require many duplicate negatives.

Black and white stripping, today, is done almost entirely by another method that still retains the name. In this procedure a piece of semi-opaque, orange-colored paper is used, called "Goldenrod." Upon this a positioning layout is ruled. The

negatives made on film are fastened into position on the Goldenrod with scotch tape. Windows are then cut out of the paper just where images appear. This sheet, with negatives, is called a "flat." When the flat and the coated press plate are locked in the printing frame, the light from the arc lamp is free to pass through the windows and expose the image of the negative, while the Goldenrod masks other areas. Deep-etch plates, using positives, can be made by the same method using Goldenrod paper, but this requires a great deal of stopping out. Instead of Goldenrod it is better to use glass or other transparent material. There is a great deal more to stripping than this short resume indicates and it is a widely-used method. This and hand transferring, as well as other methods of making duplicates, have been explained so that one can get a clear idea of just where photo-composing fits into the picture of the lithographic process.★★

(Next month: Layout for Photo-composing.)

SPLCORP

Hydro-Pressed Rigid Plastic Sheets

VINYL
POLISHED-POLISHED
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SPLCORP is recommended as the only dimensionally stable substitute for glass, when Stripping Positives or Negatives for Multi Color Work, if close registration is desired.

A few advantages enjoyed by the Lithographic Craftsman when using SPLCORP sheets are: Easy Handling, Increased Production, Job Assurance, No Breakage, and No Storage Problems.

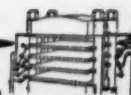
SPLCORP is manufactured in thickness ranging from .003" to .1", and is available in Transparent, Translucent, or Opaque, with either a Mirror Polished or Matte Finish on one or both sides.

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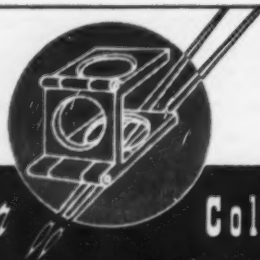
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LITH-RITE

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3 Vital Reasons

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COMPLETE OFFSET PLATE SERVICE

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STATE 2-8590

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MAGAZINE COSTS

(Continued from Page 37)

cost, or production time required on this job.

In the not too distant future this plant will probably utilize "Fotosetters" for the setting of the text on this and other periodicals, further improving the position of offset in producing jobs like the one analyzed.

Periodical publishers will tell you that there is an insistent demand for better quality in their publications, better halftone reproductions, and more art in the heads and other displays. This means that, if the cost of printing by offset can be kept within competitive range of letterpress, then the number of periodicals produced this way will continue to increase.★★

VARNISHING

(Continued from Page 42)

plished by passing the varnished sheets under infra-red or incandescent lamps and exhausting the solvent-air mixture from the top of a hood placed over the lamps. In every case, the exhausted vapor-air mixture must be kept well below the explosive limit in conformity with national Fire Underwriters requirements, and the presence within the drying area of heated surfaces above 500°F avoided.

(2) For best results, forced drying should be conducted at the lowest possible temperature consistent with substantially complete removal of solvents. Usually, a slight shrinkage in sheet size is a fairly reliable indicator that the solvents present have been driven off, and so also is the absence of solvent odor. However, the absence of solvent odor by itself may be misleading because of rapid paper sheet cooling and the use of solvents which are odor free. In some critical application some odor indicator may be introduced as a means of continuous checking. In all cases, changes in wet film application must be watched for, particularly where the solvents tend to soften the applicator roll, because the time required for drying is

roughly proportioned to the thickness applied, all else remaining equal. Heavier wet film application may be detected by periodic comparison of gloss with a control sheet.

(3) In addition to drying by simple evaporation, some varnishes require curing to bring out hardness, gloss, chemical resistance and block resistance. This is done by first removing the solvents in a conventional manner and then subjecting the solvent-free sheet to additional rapid surface heating immediately outside of the conventional oven. At this point exposed radiant heaters of above 500°F surface temperature may be used since the danger from solvent vapors is negligible. After this treatment the sheets are allowed to proceed to the pile without forced cooling, where curing is completed at a lower temperature over a period of hours. Some provisions must be made to remove smoke from over the curing section, and power must be shut off immediately if the equipment is stopped. Wherever possible, a metal conveyor should be used for

the curing section. Within limits, curing may be accomplished within the conventional oven by a drastic reduction in oven conveyor speed.

(4) Besides drying and curing, certain finishes require fusing to the underlying surface to establish a firm bond and to bring out maximum gloss. Usually such finishes have lower softening points and since no pile curing is involved, forced cooling should be applied to lower the varnished sheet temperature to within safe limits. If forced cooling is not available, it is often necessary to limit load height, roll sheets or, if cardboard is involved, stand the same on edge. Indicated oven temperatures are a relative guide, and more reliance should be placed on results at the delivery, with careful evaluation of such results on a continuous basis.

(5) Since this operation is inherently hazardous, careless handling of solvents and varnishes is fraught with dangerous possibilities. Smoking in such areas is out of the question and cleanliness is a must.★★

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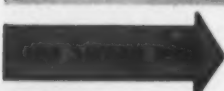
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Address replies to Classified Advertisements with Box Number, care of Modern Lithography, 175 Fifth Ave., New York 10, N. Y.

Help Wanted:

DOT ETCHER—STRIPPER: Excellent opportunity for qualified color process artist or journeyman stripper. Our modern progressive plant located in Milwaukee, Wisconsin, specializes in highest quality color reproduction. Please state experience in first letter. Address Box 388, c/o Modern Lithography.

DOT ETCHERS AND STRIPPERS for high quality offset lithography plant in Philadelphia. Please state experience. Address Box 389, c/o Modern Lithography.

HARRIS—OFFSET PRESSMAN: Opportunity in one of the larger commercial printing plants in the Midwest. We are creators and producers of business, office and accounting forms, and advertising literature. Our sales in 1953 increased more than one million dollars. Ideal working conditions. We must expand our production facilities to keep pace with sales. Here is an opportunity with a future. Write, wire or call collect for more information about job openings in our lithograph pressroom. The Reynolds & Reynolds Company, 800 Germantown Street, Dayton 7, Ohio.

PLATE MAKER to operate Rutherford Photo Composing Machine. Surface and deep etched plates. Extreme close tolerance work in the nameplate field. Able to complete plate making operation. Must have foreman ability. To work in the vicinity of Los Angeles, California.

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Desires to make change

23 years experience in all phases of lithography. Extensive technical background, as well as business administration. Ability to manage and train personnel. Interested only in quality house. Good reputation and references. Box 402, c/o Modern Lithography.

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Address Box 390, c/o Modern Lithography.

PRINTER to operate Hoe Press. Must have nameplate experience and foreman ability. To work in the vicinity of Los Angeles, California. Address Box 391, c/o Modern Lithography.

A-1 CAMERAMAN for night work and Stripper for day work. 2 and 3 color work. Top wages and overtime. No other than top-notch men need apply. Printing Service Company, 642 S. Main Street, Dayton 2, Ohio.

SUPERVISOR for Stripping Department in medium-sized plant doing first-class color work. Must be able to supervise and teach new employees. References

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Superintendent — Lithography	MIDWEST \$ 7,500
Superintendent — Rotogravure	NIGHT OPEN
Production — Offset — Letterpress	MIDWEST \$6,000-8,000
Purchasing Agent	EAST \$ 10,000
Asst. Purchasing Agent	MIDWEST \$5,500-8,500
Estimator — Litho	MIDWEST \$ 6,000
Foreman — Trade Bindery	EAST \$6,000 UP
Plant Maintenance Engineer	SOUTH \$ 6,000
Chemist — Metal Decorating	MIDWEST \$5,500-7,000
Salesmen — Equipment	\$8,000-8,000

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required and will be kept confidential. State age and experience in applying for this position. Address Box 392, c/o Modern Lithography.

TWO-COLOR PRESSMAN and feeder operator needed for plant in Florida. Must be experienced in all-around commercial work, including color process and all types of paper. State experience. Address Box 393, c/o Modern Lithography.

Situations Wanted:

TECHNICAL SPECIALIST capable of assuming technical direction of progressive plant. Practical experience as photographer and platemaker plus years of research, troubleshooting and teaching. Desires position involving standardization and up-grading of methods and material and in plant training program. Address Box 394, c/o Modern Lithography.

SWISS PLATEMAKER: 28 years old, 12 years experience in alumen, deep-etch, bi-metal commercial and color process. Operate several types of photo-composing machines. Requests for references welcomed. Address Box 395, c/o Modern Lithography.

COMBINATION MAN: Offset and letterpress. 19 years of thorough practical experience in all departments of printing and production. Seeking position in a combination plant or any one of these departments. Will relocate. Address Box 396, c/o Modern Lithography.

OFFSET PHOTOGRAPHER, platemaker, and stripper. Many years of extensive experience. Also planning jobs. Will go anywhere. Address Box 397, c/o Modern Lithography.

(Turn the Page, Please)

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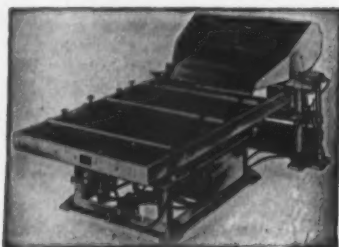
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WANTED: Capable camera operator of long experience wishes engagement, black and white work, Levy screens preferred. Address Box 403, c/o *Modern Lithography*.

Miscellaneous:

WANTED: McKinley Roller for Harris S7L. Address Box 399, c/o *Modern Lithography*.

For Sale:

FOR SALE: Harris offset press LSG 46½ x 68½, two color, stream feed. This press is in excellent condition and ready to do the finest hairline register work. It was used very little since it was purchased new. Available at once. Priced right for prompt action. Terms arranged. Contact

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Graphic Machinery Exchange, 30 W. 24th St., New York City. Phone ORegon 5-4540.

FOR SALE: One Douthitt 40" x 50" Vacuum Frame, Type D, used six months—\$550.00. One Vacuum frame 22" x 28" with new blanket and glass—\$175.00. Robert W. Grubbe Co., 202 N. Peak St., Dallas, Texas.

FOR SALE: Midwest Graining Plant. 4 Graining Machines and other equipment. \$10,000 complete. Reason—illness. Address Box 400, c/o *Modern Lithography*.

BELLOWS FOR SALE: R. W. Borrowdale and Sons have taken over the King Bellow Co. and are able to produce the same extra fine quality bellows that have earned such an excellent reputation in the past 40 years. The best bellows are always the cheapest. We would be pleased to quote you on your requirements. R. W. Borrowdale and Sons, 640 W. 65 Street, Chicago, Illinois.

FOR SALE: ¾ x 12 National White Flame Carbons 50% list; Gelb L116SF Printing Lamp for 50 x 72 Frame—\$295.00; New Plate Whirler for 22 x 34" Press Plate—\$525.00. Singer Engineering Co. for complete plate making equipment, 248 Mulberry St., New York 12, N. Y.

FOR SALE: One Craftsman Line-Up table Serial 385, Model C, Size 51" x 76" in good condition. Lord Baltimore Press, 1601 Edison Highway, Baltimore 13, Md.

For Sale

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27" width. Precision electric eyes. Stroboscope. Excellent condition. 150 base cylinders. Asking price complete \$50,000.

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books on advertising production.

A total of 23,139 copies of LNA's four-page informational pamphlet, "Lithography's Place in Printing Production," listing six basic reasons for lithography's increased use today, was distributed to art, advertising and production courses in the past year.

Two Asns. Join PIA

Graphic Arts Association of Fort Worth and Employing Printers Association of Montreal have affiliated with Printing Industry of America effective February 1, it is announced by James J. Rudisill, Lancaster, Pa., president, Printing Industry of America. The affiliation of these two organizations adds between 75 and 100 companies to PIA's membership list, which is now approaching a total of 5,000 companies throughout the United States and Canada, he said.

Magruder To Oxford

Joseph H. Magruder has joined the sales staff of Oxford Paper Co., New York, working with the company's advertising, sales promotion and marketing programs. Previously he had been assistant to the vice president in charge of planning for Dixie Cup Co., Easton, Pa. While with Dixie Cup he had served as an industry consultant with the National Production Authority.

Edw. Caldwell Dies in Toronto

Edward Caldwell, 71, co-founder of the Strathmore Press, Toronto, died January 6. He formerly was plant superintendent of Brown and Searle Co. and in 1911 formed the Strathmore Press with W. G. Cumming. He helped develop the printing and lithographing firm which was purchased by Rust Craft Ltd. in 1945.

Plan Chicago Book Exhibit

The Chicago Book Clinic, an organization of publishing house representatives devoted to promotion of high book production standards, will hold its 5th annual exhibit of Chicago and mid-western book making in the Chicago Public Library during the month of May.

LNA Materials Aiding Schools

The long-standing program of co-operation with educational groups throughout the country, sponsored by the Lithographers National Association, New York, has produced rich rewards for lithography in recent years, according to Ralph D. Cole, chairman of the LNA lithographic promotion committee.

Supplementary teaching aids and material on the use and advantages of the offset lithographic process, prepared by the association's educational department, are being widely used in advertising, printing and production courses given by colleges, vocational schools, advertising clubs, production men's organizations and commercial art schools.

In preparation for the beginning of the new school semester this month, LNA notified 2,200 schools

of the availability of its lithographic material. Lists of literature provided by the association are sent to educational institutions twice a year and will be provided to interested persons on request.

In the past year, LNA distributed 6,555 pieces of literature, ranging from the history of lithography to the preparation of copy for reproducing various art techniques. During that period, students in 437 schools and groups received instruction based on this material.

This industry-wide contribution to an understanding of the modern techniques and methods of offset lithography has been highly praised by the nation's educators, who, in the past, were hard-pressed for adequate teaching aids of this kind. LNA's material has been incorporated into many recently published

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Brooklyn Co. Building Plant

A long-term lease for a completely air conditioned plant has been signed by Brooklyn Letter Service, Inc. The building, to be located at 185 S. Portland Ave., Brooklyn, will contain two stories and basement.

Executive offices of the company, one of the largest direct-mail organizations in the country, will remain at Brooklyn's present location at 56 Court St.

Each of the company's departments, including art and creative services, lithography, photo offset, printing, multigraphing, mimeographing and Vari-typing, will be housed in the modern new quarters.

An expansion program in the field of premium mailings for radio and television clients will be a feature of the direct-mailing department.

Sam Paznik is president and general manager of Brooklyn Letter Service. Other officers include the following: Irving Greenspun, sales manager; Miss Ray Gordon, assistant to the president; Miss Clara Rothkopt, controller; Mitchell Philmus, production manager; Al Litton, director of purchasing and estimating; Michael Paznik, manager of direct-mail and premium department; Mrs. Locadia Jacks, art director and Al Lorefice, plant superintendent.

Vandercook Moves

New plant location of Vandercook & Sons, Inc. is 3601 W. Touhy Ave., Chicago 45, Ill. It is a new, modern structure.

PRODUCTION CLINIC

(Continued from Page 53)

should be taken to maintain their resiliency and keep their surface clean and free from glaze. The washing-up operation is most important for much of the damage done to rollers results from the surface not be thoroughly cleaned of old ink, particles of lint and gum arabic, which finally find their way into the waterlogged ink.

Low spots in a roller surface are also very apt to glaze and cake quickly. The same condition will result when rollers are not set to have the required contact with each other.

Furthermore, any of the rollers not making proper contact will not clean off thoroughly when washed with a machine. An excess of driers used in ink also will cause glazing to occur rapidly since the ink may oxidize before washing-up and the solvent used for washing will not soften it sufficiently during the wash-up unless an abrasive is used.

Aside from the fact that glazed rollers do not print properly, the glazing on the surface will make it brittle, and the rollers will soon become full of small cracks which in time will cause no end of hickeys to appear on the printed sheet. In the beginning, these hickeys will actually be small bits of the hard ink from the roller surface, and eventually, pieces of the roller will pull loose.

To guard against this, the rollers should be washed by hand once a week and examined for any signs of trouble. It is also advisable to use pumice periodically in the washing-up process whether done by hand or with a wash-up machine. A mixture of pumice and oleic acid applied to the rollers after washing and a second washing with the machine is very effective.

One very important thing often overlooked is the caking of ink on the very ends of the rollers. There is a gradual buildup of ink that takes place when the form rollers are longer than the vibrating rollers, and unless these ends are cleaned by hand at the end of each wash-up the roller surface is gradually increased in length. These ends eventually break off in very small pieces and find their way onto the plate, causing hickeys. On some presses there is a very small gap between the plate surface and bearer, and when hard ink collects on the ends of the form rollers it may reach the bearer and collect oil which will cause mourning bands to form on the ends of the plate as the oil from the bearers is brought in contact with it.

(The author invites questions on pressroom procedures for discussion in this department. Address them to Theodore Makarius, c/o Modern Lithography, 175 Fifth Ave., New York, 10, N. Y.—Editor). ★ ★

Trade Events

Point-of-Purchase Advertising Institute, annual symposium and show, Statler Hotel, New York, March 30, 31, April 1.

National Assn. of Litho Clubs, annual convention, May 7, 8, 1954, Biltmore Hotel, New York.

Technical Assn. of the Graphic Arts, annual meeting, May 10-11, 1954, Schroeder Hotel, Milwaukee.

DRUPA, Graphic Arts Exposition, May 15-30, 1954, Dusseldorf, Germany.

Lithographers National Assn., Annual convention and exhibit of Lithographic Awards winners, The Greenbrier, White Sulphur Springs, W. Va., June 7, 8 and 9.

Southwestern Graphic Arts Exposition, Shamrock Hotel, Houston, July 3-12.

Annual Conference on Printing Education, University of Colorado, Boulder, Colo., July 4-8.

Intl. Assn. of Printing House Craftsmen, annual convention, August 8-11, Bellevue-Stratford Hotel, Philadelphia.

Natl. Assn. of Photo-Lithographers, annual convention and show, Sept. 22-25, Statler Hotel, New York.

American Photoengravers Assn., annual convention and show, Oct. 11-15, Jefferson Hotel, St. Louis.

Printing Industry of America, annual convention, Nov. 15-19, Statler Hotel, Detroit.

Litho Schools

CANADA—Ryerson Institute of Technology, School of Graphic Arts, 50 Gould St., Toronto, Ont., Canada.

CHICAGO—Chicago Lithographic Institute, Glassner House, 1800 S. Prairie Ave., Chicago 16, Ill.

CINCINNATI—Ohio Mechanics Institute, Cincinnati, Ohio.

LOS ANGELES—Los Angeles Junior College, 1636 S. Oliver St., Los Angeles 15, Calif.

MINNEAPOLIS—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

NASHVILLE—Southern School of Printing, 1514 South St., Nashville, Tenn.

NEW YORK—New York Trade School, Lithographic Department, 312 East 67 St., New York, N. Y.

OKLAHOMA—Oklahoma A & M Technical School, Graphic Arts Dept., Okmulgee, Okla.

ROCHESTER—Rochester Institute of Technology, Dept. of Publishing & Printing, 65 Plymouth Ave., South Rochester 8, N. Y.

PHILADELPHIA—Murrell Dobbins Vocational School, 22nd and Lehigh, Philadelphia, Pa.

PITTSBURGH—Carnegie Institute of Technology, Dept. of Printing Administration, Pittsburgh.

SAN FRANCISCO—City College of San Francisco, Ocean and Phelan Aves., Graphic Arts Department.

ST. LOUIS—David Ranken, Jr. School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.

WEST VIRGINIA—W. Va. Institute of Technology, Montgomery, W. Va.

Trade Directory

Lithographic Tech. Foundation

Wade E. Griswold, Exec. Dir.

131 East 39 St., New York 16, N. Y.

National Association of Photo-Lithographers

Walter E. Soderstrom, Exec. V. P.

317 West 45 St., New York 36, N. Y.

Lithographers National Association

W. Floyd Maxwell, Exec. Dir.

420 Lexington Ave., New York 17, N. Y.

National Assn. of Litho Clubs

Angelo Pusterino, Exec. Secy.

Daniel Murphy & Co., Inc.

480 Canal St., New York 13, N. Y.

Printing Industry of America

James R. Brackett, Gen. Mgr.

719 15th St., N. W. Washington 5, D. C.

International Assn. of Printing House Craftsmen

P. E. Oldt, Exec. Sec'y.

307 E. Fourth St., Cincinnati 2.

FEBRUARY, 1954

(The Advertisers' Index has been carefully checked but no responsibility can be assumed for errors or omissions.)

Tale Ends

MULTILITHED reproductions often are about as good as the real thing, especially in the case of five and 10 dollar bills, it appears. Two partners in a San Francisco mailing service learned that the hard way recently when they were indicted for counterfeiting by a federal grand jury.

The men, George A. Burns and Kenneth D. Campbell, astounded their friends one evening last year in a San Francisco tavern by lighting cigarettes with the bills, tearing them up, then giving a shoebox full to the bartender, to destroy.

The bills were just play money, the defendants assert, taken to test detail work on a new camera. But they got into the wrong hands after the bartender forgot to destroy them.

Moral: Don't light cigarettes with \$5 bills, not even fake ones.

★

John Churchill, advertising manager, Spaulding-Moss Company, Boston, exhibited three water colors at an exhibit by members of the Boston Business Men's Art Club which concluded a two-week showing at New England Mutual Hall, Boston, recently.

★

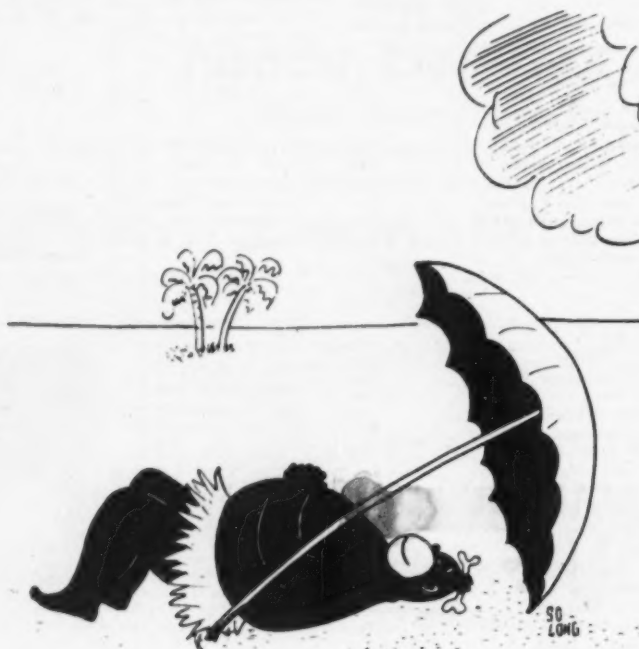
"What - will - they - think - of - next Dept."—Green Duck Mfg. Co., Chicago metal lithographing concern has just announced a new advertising medium—the paper clip. The new clips carry a miniature billboard reproducing any desired advertising message. Think of the marketing possibilities among all the clip joints! For more details see the Metal Decorating Section elsewhere in this magazine.

The first supply was exhausted right away, and we now have a second printing, on a 17 x 22" sheet. These reprints are now available. No charge for two or three, but a nominal charge for quantities.

★

H. F. C. Brown, general traffic manager of Western Printing & Lithographing Co., Racine, Wis., was re-elected a member of the executive committee of the Midwest Shippers Advisory Board at its January meeting in Chicago.

Since we compiled and published the specifications of all offset presses (*ML*, Nov., 1953) there has been an unprecedented demand for reprints.



Basking . . .

WHILE basking in the sunshine of a good sales year just completed, don't forget that the icy wind of keener competition can change this pretty picture,—and fast. Experience shows that advertising is a great help in keeping the sales sun shining. Especially if you want to continue enjoying your share of the sun in the field of lithography, don't forget regular advertising in

MODERN LITHOGRAPHY

175 FIFTH AVE.

NEW YORK 10, N. Y.

Member, Audit Bureau of Circulations



**FOR
LITY**

*Atlas, the Greek
divinity who
had charge of the
pillars that upheld
the heavens.
Statue in Radio City.
Photo by Todd Webb.*

Protect the rising skyscraper of your own Reputation by planning your printing programs to be structures of outstanding character and value produced with materials of tried and proven quality... such as coated paper from the Cantine Mill.

Cantine's COATED PAPERS

THE MARTIN CANTINE COMPANY *Specialists in Coated Papers Since 1888*

SAUGERTIES, N.Y. Branches: NEW YORK and CHICAGO (In Los Angeles and San Francisco: Wylie & Davis)

LETTERPRESS: Hi-Arts, Ashokan, M-C Folding *Book and Cover*, Zena, Catskill, Velvetone, Softone, Esopus Tints, Esopus Postcard.

OFFSET-LITHO: Hi-Arts Litho C.1S., Zenagloss Offset C.2S. *Book and Cover*, Lithogloss C.1S., Catskill Litho C.1S., Catskill Offset C.2S., Esopus Postcard C.2S.

HARRIS OFFSET PRESS MODELS

Single Color

Two-Color

Four-Color

Five-Color

HARRIS... the professional press

Most successful printers and lithographers have two kinds of ink in their blood: printer's ink and ledger ink. They want to turn out impressions that stand up against the best in the business—and they want to make a profit doing it. The ability of a Harris to do both jobs well is one of the reasons why commercial printers call it the professional press.

They also call it the professional press because most of the lithographic craftsmen in America have been trained on Harris presses. And they call it the professional press

because American commercial lithographers use more Harris presses than all other makes combined.

Whether you want to do "specimen" printing, or turn out good work on a rush job, you can depend on a Harris. In either case, a Harris puts more salable sheets in the delivery pile, makes more profits for you. For the full story on the world's only complete line of professional offset presses, check with Harris-Seybold Company in all principal cities, or at 4510 East 71st Street, Cleveland 5, Ohio.

Harris model 245A two-color offset press

ROTARY
PRESSES



HARRIS-SEYBOLD
Company

4510 EAST 71ST STREET • CLEVELAND 5, OHIO
Branches: Boston, Chicago, Dallas, Dayton,
Los Angeles, Minneapolis, Montreal, New York,
Philadelphia, San Francisco, St. Louis, St. Paul,
Toronto, Vancouver, Washington

fine graphic arts equipment...for everybody's profit